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(54) **AGRICULTURAL/HORTICULTURAL INSECTICIDE AND METHOD FOR USING THE SAME**

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CPC ***A01N 47/20*** (2013.01); ***C07C 211/47*** (2013.01); ***C07C 211/48*** (2013.01);
(Continued)

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USPC 564/163; 546/261, 300
See application file for complete search history.

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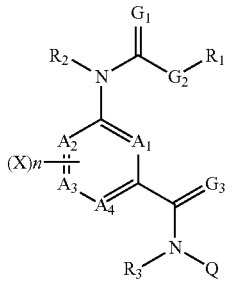
(57) **ABSTRACT**

An object of the present invention is to provide insecticides having high effectiveness. The present invention provides compounds represented by formula (1):

(1)



wherein A_1, A_2, A_3, and A_4 independently represent a carbon atom, a nitrogen atom, or an oxidized nitrogen atom; R_1 represents a C1-C6 alkyl group which may be substituted, a phenyl group which may be substituted, or a heterocyclic group which may be substituted; R_2 and R_3 independently represent a hydrogen atom, a C1-C4 alkyl group which may be substituted, or a C1-C4 alkylcarbonyl group which may be substituted; G_1, G_2, and G_3 independently represent an oxygen atom or a sulfur atom; Xs may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C4 alkyl group which may be substituted, or an amino group which may be substituted; n represents an integer of 0 to 4; Q represents a phenyl group which may be substituted, a naphthyl group which may be substituted, a tetrahydronaphthyl group which may be substituted, or a heterocyclic group which may be substituted, insecticides containing the compounds as active ingredients, and a method for producing the compounds.

The compounds represented by formula (1) exhibit an excellent preventive effect as insecticides and also exhibit an excellent preventive effect when being combined with another insecticide, an acaricide, a nematocide, a fungicide, a herbicide, a plant growth regulator, or a biological pesticide.

1 Claim, No Drawings

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AGRICULTURAL/HORTICULTURAL INSECTICIDE AND METHOD FOR USING THE SAME

This application is a DIV of Ser. No. 13/614,287 Sep. 13, 2012, U.S. Pat. No. 8,816,128, which is a DIV of Ser. No. 13/419,063, filed on Mar. 13, 2012, which is a DIV of Ser. No. 10/570,013, filed on Feb. 28, 2006, now U.S. Pat. No. 8,158,814, which is a 371 of PCT/JP40/12416, filed on Aug. 23, 2004.

TECHNICAL FIELD

The present invention relates to compounds represented by formula (1), insecticides containing the compounds as active ingredients, a method for producing the insecticides, and a method for using the insecticides.

BACKGROUND ART

PCT Japanese Translation Patent Publication No. 11-511442 discloses salicylic compounds similar to compounds of the present invention. However, compounds represented by formula (1) of the present invention do not have a salicylic skeleton, and the compounds disclosed in the above publication are clearly outside the scope of claims of the present invention.

Publication No. WO2003-22806 discloses compounds as production intermediates similar to the compounds of the present invention, but it does not disclose an activity to insects. Also, the compounds disclosed in the publication are clearly outside the scope of claims of the present invention.

J. Org. Chem. 142 (1966) discloses compounds as production intermediates similar to the compounds of the present invention, but it does not disclose an activity to insects. Also, the compounds disclosed in the publication are clearly outside the scope of claims of the present invention.

J. Am. Chem. Soc. 6382 (2000) discloses compounds as production intermediates similar to the compounds of the present invention, but it does not disclose an activity to insects. Also, the compounds disclosed in the publication are clearly outside the scope of claims of the present invention.

DISCLOSURE OF INVENTION

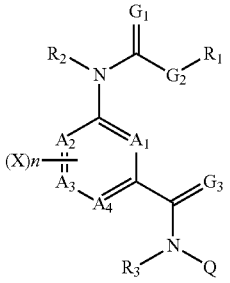
An object of the present invention is to provide insecticides having high effectiveness.

As a result of intensive research for achieving the object, the inventors found that the compounds of the present invention are novel compounds not disclosed in any document and have an excellent insecticidal effect, and the compounds can be used as new insecticides. It is also found that intermediates in production of the compounds of the present invention are not disclosed in any document and are useful production intermediates. The present invention has been achieved based on these findings.

The present invention provides compounds represented by the following formulae:

[1] Compounds represented by formula (1)

(1)



wherein A_1, A_2, A_3, and A_4 independently represent a carbon atom, a nitrogen atom, or an oxidized nitrogen atom; R_1 represents a C1-C6 alkyl group which may be substituted, a phenyl group which may be substituted, or a heterocyclic group which may be substituted; R_2 and R_3 independently represent a hydrogen atom, a C1-C4 alkyl group which may be substituted, or a C1-C4 alkylcarbonyl group which may be substituted; G_1, G_2, and G_3 independently represent an oxygen atom or a sulfur atom; Xs may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C4 alkyl group which may be substituted, or an amino group which may be substituted; n represents an integer of 0 to 4; Q represents a phenyl group which may be substituted, a naphthyl group which may be substituted, a tetrahydronaphthyl group which may be substituted, or a heterocyclic group which may be substituted.

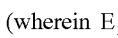
[2] Compounds represented by formula (1) wherein A_1, A_2, A_3, and A_4 independently represent a carbon atom, a nitrogen atom, or an oxidized nitrogen atom; R_1 represents the following:

a C1-C6 alkyl group,
a C1-C6 haloalkyl group,
a C2-C6 alkenyl group,
a C2-C6 haloalkenyl group,
a C2-C6 alkynyl group,
a C2-C6 haloalkynyl group,
a C3-C6 cycloalkyl group,
a C3-C6 halocycloalkyl group,
a phenyl group,
a substituted phenyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,
a naphthyl group,
a substituted naphthyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a

pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,

a heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a tetrahydrofuryl group, a thienyl group, a tetrahydrothienyl group, a tetrahydropyranyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group),

a substituted heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a tetrahydrofuryl group, a thienyl group, a tetrahydrothienyl group, a tetrahydropyranyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group) having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,



(wherein E_1 represents a C1-C4 alkylene group, a C2-C4 alkenylene group, a C3-C4 alkynylene group, a C1-C4 haloalkylene group, a C2-C4 haloalkenylene group, or a C3-C4 haloalkynylene group; R_4 represents a hydrogen atom, a C1-C6 alkyl group, a C2-C6 alkenyl group, a C2-C6 alkynyl group, a C1-C6 haloalkyl group, a C2-C6 haloalkenyl group, a C2-C6 haloalkynyl group,

a C3-C8 cycloalkyl group,

a C3-C8 halocycloalkyl group,

a phenyl group,

a substituted phenyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,

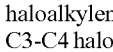
a naphthyl group,

a substituted naphthyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,

a heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a tetrahydrofuryl group, a thienyl group, a tetrahydrothienyl group, a tetrahydropyranyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group), or

a substituted heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a tetrahydrofuryl group, a thienyl group, a tetrahydrothienyl group, a tetrahydropyranyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group) having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group), and

Z_1 represents —O—, —S—, —SO—, —SO_2—, —C(=O)—, —C(=O)O—, —OC(=O)—, —$N(R_5)$—, —C(=O)$N(R_5)$—, or —$N(R_5)$C(=O)— (R_5 represents a hydrogen atom, a C1-C4 alkyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, or a C1-C4 alkoxycarbonyl group)), or



(wherein E_2 represents a C1-C4 alkylene group, a C2-C4 alkenylene group, a C3-C4 alkynylene group, a C1-C4 haloalkylene group, a C2-C4 haloalkenylene group, or a C3-C4 haloalkynylene group, and R_6 represents a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group,

a cyano group,

a nitro group,

a hydroxyl group,

a phenyl group,

a substituted phenyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,

a naphthyl group,

a substituted naphthyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a

C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group,

a heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a tetrahydrofuryl group, a thienyl group, a tetrahydrothienyl group, a tetrahydropyranyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group), or

a substituted heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a tetrahydrofuryl group, a thienyl group, a tetrahydrothienyl group, a tetrahydropyranyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group) having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a C1-C4 alkylcarbonyloxy group, and a C1-C4 alkoxycarbonyl group);

R_2 and R_3 independently represent a hydrogen atom, a C1-C4 alkyl group, a C1-C4 alkylcarbonyl group, or a C1-C4 haloalkylcarbonyl group; G_1, G_2, and G_3 independently represent an oxygen atom or a sulfur atom; Xs may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C4 alkyl group, a C1-C4 haloalkyl group, a C1-C4 alkoxy group, a C1-C4 haloalkoxy group, a C1-C4 alkylthio group, a C1-C4 haloalkylthio group, a C1-C4 alkylsulfinyl group, a C1-C4 haloalkylsulfinyl group, a C1-C4 alkylsulfonyl group, a C1-C4 haloalkylsulfonyl group, a cyano group, a nitro group, an amino group, or an amino group which may be substituted by a C1-C4 alkyl group;

n represents an integer of 0 to 4;

Q represents a phenyl group,

a substituted phenyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 haloalkylsulfonyloxy group, a C1-C4 alkylcarbonyl group, a C1-C4 haloalkylcarbonyl group, a cyano group, a nitro group, a hydroxyl group, a pentafluorosulfanyl group, a phenyl group, a substituted phenyl group (which may have the same or different substituents selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 haloalkylsulfonyloxy, a cyano group, a nitro group, a hydroxyl group, and a pentafluorosulfanyl group), a thienyl group, and a substituted thienyl group (which may have the same or different substituents selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 haloalkylsulfonyloxy, a cyano group, a nitro group, a hydroxyl group, and a pentafluorosulfanyl group),

a naphthyl group,

a substituted naphthyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C3-C8 cycloalkyl group, a C3-C8 halocycloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, and a pentafluorosulfanyl group,

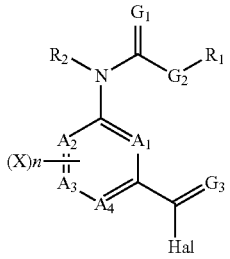
a heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a thienyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group), a substituted heterocyclic group (which represents a pyridyl group, a pyridine-N-oxide group, a pyrimidinyl group, a pyridazyl group, a furyl group, a thienyl group, an oxazolyl group, an isoxazolyl group, an oxadiazolyl group, a thiazolyl group, an isothiazolyl group, a thiadiazolyl group, a pyrrole group, an imidazolyl group, a triazolyl group, a pyrazolyl group, or a tetrazolyl group) having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, and a pentafluorosulfanyl group,

a tetrahydronaphthyl group, or

a substituted tetrahydronaphthyl group having one or more substituents which may be the same or different and which are selected from a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a cyano group, a nitro group, a hydroxyl group, and a pentafluorosulfanyl group (excluding a case (1) in which Q represents 3,4-dichlorophenyl when R1 represents a methyl group, a case (2) in which Q represents an unsubstituted phenyl group when R1 represents an ethyl group, and a case (3) in which Q represents an unsubstituted pyridyl group when R1 represents an unsubstituted phenyl group).

[3] Compounds represented by formula (2)

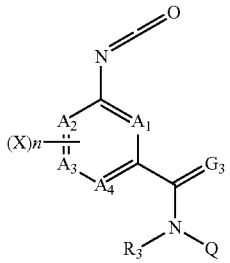
(2)



wherein A_1, A_2, A_3, A_4, R_1, R_2, R_3, G_1, G_2, G_3, X, and n each represent the same as in formula [1], and Hal represents a halogen atom.

[4] Compounds represented by formula (3)

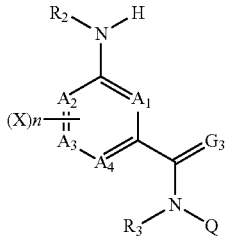
(3)



wherein A_1, A_2, A_3, A_4, R_3, G_3, X, n and Q each represent the same as in formula [1].

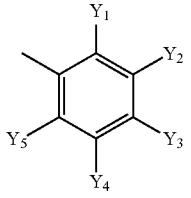
[5] Compounds represented by formula (4)

(4)



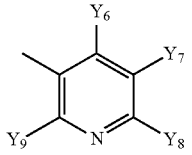
wherein A_1, A_2, A_3, A_4, R_2, R_3, G_3, X, and n each represent the same as in formula [1], and Q represents a group represented by formula (1-2) or (1-3):

(1-2)



(wherein Y_1, Y_2, Y_4, and Y_5 may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a pentafluorosulfanyl group, a cyano group, or a nitro group, and Y_3 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, a C1-C6 haloalkylsulfonyl group, or a pentafluorosulfanyl group, but excluding a case where both Y_1 and Y_5 represent a hydrogen atom)

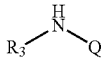
(1-3)



(wherein Y_6, Y_7, and Y_9 may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a pentafluorosulfanyl group, a cyano group, or a nitro group, and Y_8 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a 01-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, a C1-C6 haloalkylsulfonyl group, or a pentafluorosulfanyl group, but excluding a case where both Y_6 and Y_9 represent a hydrogen atom).

[6] A method for producing the above-described compounds in [1] comprising reacting the compounds represented in [3] by formula (2) with compounds represented by formula (5):

(5)



wherein R_3 and Q each represent the same as in [1].

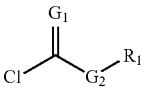
[7] A method for producing the above-described compounds in [1] comprising reacting the compounds represented in [4] by formula (3) with compounds represented by formula (6):

$$H\text{-}G_2\text{-}R_1 \quad (6)$$

wherein R_1 and G_2 each represent the same as in [1].

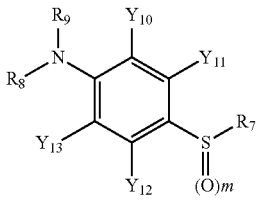
[8] A method for producing the above-described compounds in [1] comprising reacting the compounds represented in [5] by formula (4) with compounds represented by formula (7):

(7)



wherein R_1, G_1, and G_2 each represent the same as in [1].

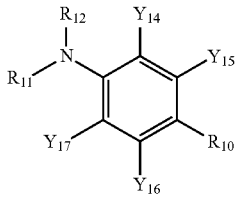
[9] Aniline derivatives represented by formula (8):



(8)

wherein R_7 represents a C1-C6 haloalkyl group, Y_{10}, Y_{11}, Y_{12}, and Y_{13} may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl croup, a pentafluorosulfanyl group, a cyano group, or a nitro group, and R_8 and R_9 independently represent a hydrogen atom, a C1-C4 alkyl group, a m-nitrobenzoyl group, or a substituted m-nitrobenzoyl group, and m represents 0, 1, or 2.

[10] Aniline derivatives represented by formula (9):



(9)

wherein R_{10} represents a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, Y_{14}, Y_{15}, Y_{16}, and Y_{17} may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a pentafluorosulfanyl group, a cyano group, or a nitro group, and R_{11} and R_{12} independently represent a hydrogen atom, a C1-C4 alkyl group, a m-nitrobenzoyl group, or a substituted m-nitrobenzoyl group.

[11] An insecticide comprising any one of the compounds in [1] or [2] as an active ingredient.

[12] A method for using a chemical comprising treating a useful crop or soil with an effective amount of any one of the compounds [1] or [2], for protecting the useful crop from harmful organisms.

[13] A method for preventing pests comprising using the compound [1] or [2] and at least one insecticide and/or fungicide in combination.

The compounds of the present invention exhibit an excellent preventive effect as insecticides in low dosages, and also exhibit an excellent preventive effect when being used in combination with another insecticide, an acaricide, a nematocide, a fungicide, a herbicide, a plant growth regulator, or a biological pesticide.

BEST MODE FOR CARRYING OUT THE INVENTION

In the definitions of formula (1) of the present invention, the term "halogen atom" means a fluorine atom, a chlorine, atom, a bromine atom, or an iodine atom. The characters "n-", "i-", "s-", and "t-" mean "normal", "iso", "secondary", and "tertiary", respectively. With respect to the expression "Ca-Cb (a and b each represent an integer of 1 or more)", for example, "C1-C6" means that the number of carbon atoms is 1 to 6, "C3-C8" means that the number of carbon atoms is 3 to 8, and "C1-C4" means that the number of carbon atoms is 1 to 4.

In the definitions of the formulae such as formula (1) of the present invention, the used terms have the following meanings:

The term "an alkyl group which may be substituted" means a straight, branched or cyclic alkyl group which may be substituted by the same or different groups selected from a hydrogen atom, a halogen atom, a hydroxyl group, a cyano group, a nitro group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylcarbonyl group, a C1-C6 haloalkylcarbonyl group, a C1-C6 alkoxycarbonyl group, a C1-C6 haloalkoxycarbonyl group, a C1-C6 alkylcarbonyloxy, a C1-C6 haloalkylcarbonyloxy group, an amino group, a C1-C6 alkylamino group, a di-C1-C6 alkylamino group, a phenyl group which may be substituted, a phenylcarbonyl group which may be substituted, a phenylamino group which may be substituted, and a heterocyclic group which may be substituted.

The term "an alkylcarbonyl group which may be substituted" means a straight, branched or cyclic alkylcarbonyl group which may be substituted by the same or different groups selected from a hydrogen atom, a halogen atom, a hydroxyl group, a cyano group, a nitro group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylcarbonyl group, a C1-C6 haloalkylcarbonyl group, a C1-C6 alkoxycarbonyl group, a C1-C6 haloalkoxycarbonyl group, a C1-C6 alkylcarbonyloxy, a C1-C6 haloalkylcarbonyloxy group, an amino group, a C1-C6 alkylamino group, a di-C1-C6 alkylamino group, a phenyl group which may be substituted, a phenylcarbonyl group which may be substituted, a phenylamino group which may be substituted, and a heterocyclic group which may be substituted.

The term "a phenyl group which may be substituted" means a phenyl group which may be substituted by the same or different groups selected from a hydrogen atom, a halogen atom, a hydroxyl group, a cyano group, a nitro group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylcarbonyl group, a C1-C6 haloalkylcarbonyl group, a C1-C6 alkoxycarbonyl group, a C1-C6 haloalkoxycarbonyl group, a C1-C6 alkylcarbonyloxy, a C1-C6 haloalkylcarbonyloxy group, an amino group, a C1-C6 alkylamino group, a di-C1-C6 alkylamino group, a phenyl group which may be substituted, a phenylcarbonyl group which may be substituted, a phenylamino group which may be substituted, and a heterocyclic group which may be substituted.

The term "a naphthyl group which may be substituted" means a naphthyl group which may be substituted by the same or different groups selected from a hydrogen atom, a halogen atom, a hydroxyl group, a cyano group, a nitro group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylcarbonyl group, a C1-C6 haloalkylcarbonyl group, a C1-C6 alkoxycarbonyl group, a C1-C6 haloalkoxycarbonyl group, a C1-C6 alkylcarbonyloxy, a C1-C6 haloalkylcarbonyloxy group, an amino group, a C1-C6 alkylamino group, a di-C1-C6 alkylamino group, a phenyl group which may be substituted, a phenylcarbonyl group which may be substituted, a phenylamino group which may be substituted, and a heterocyclic group which may be substituted.

The term "a tetrahydronaphthyl group which may be substituted" means a tetrahydronaphthyl group which may be substituted by the same or different groups selected from a hydrogen atom, a halogen atom, a hydroxyl group, a cyano group, a nitro group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylcarbonyl group, a C1-C6 haloalkylcarbonyl group, a C1-C6 alkoxycarbonyl group, a C1-C6 haloalkoxycarbonyl group, a C1-C6 alkylcarbonyloxy, a C1-C6 haloalkylcarbonyloxy group, an amino group, a C1-C6 alkylamino group, a di-C1-C6 alkylamino group, a phenyl group which may be substituted, a phenylcarbonyl group which may be substituted, a phenylamino group which may be substituted, and a heterocyclic group which may be substituted.

The term "a heterocyclic group which may be substituted" means a heterocyclic group which may be substituted by the same or different groups selected from a hydrogen atom, a halogen atom, a hydroxyl group, a cyano group, a nitro group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a C1-C6 alkylcarbonyl group, a C1-C6 haloalkylcarbonyl group, a C1-C6 alkoxycarbonyl group, a C1-C6 haloalkoxycarbonyl group, a C1-C6 alkylcarbonyloxy, a C1-C6 haloalkylcarbonyloxy group, an amino group, a C1-C6 alkylamino group, a di-C1-C6 alkylamino group, a phenyl group which may be substituted, a phenylcarbonyl group which may be substituted, a phenylamino group which may be substituted, and a heterocyclic group which may be substituted.

The term "a C1-C6 alkyl group" means a straight or branched alkyl group having 1 to 6 carbon atoms, such as methyl, ethyl, n-propyl, i-propyl, n-butyl, s-butyl, t-butyl, n-pentyl, 2-pentyl, neopentyl, 4-methyl-2-pentyl, n-hexyl, or 3-methyl-n-pentyl. The term "a C1-C6 haloalkyl group" means a straight or branched alkyl group having 1 to 6 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoromethyl, pentafluoroethyl, heptafluoro-n-propyl, heptafluoro-i-propyl, 2,2-difluoroethyl, 2,2-dichloroethyl, 1,3-difluoro-2-propyl, 1,3-dichloro-2-propyl, 1-chloro-3-fluoro-2-propyl, 1,1,1-trifluoro-2-propyl, 2,2,2-trifluoroethyl, 2,2,2-trichloroethyl, 2,2,2-tribromoethyl, 3,3,3-trifluoro-n-propyl, 4,4,4-trifluoro-n-butyl, 1,1,1,3,3,3-hexafluoro-2-propyl, 1,1,1,3,3,3-hexafluoro-2-chloro-2-propyl, 1,1,1,3,3,3-hexafluoro-2-bromo-2-propyl, 1,1,2,3,3,3-hexafluoro-2-chloro-n-propyl, 1,1,2,3,3,3-hexafluoro-2-bromo-n-propyl, 1,1,2,3,3,3-hexafluoro-1-bromo-2-propyl, 2,2,3,3,3-pentafluoro-n-propyl, 3,3,4,4,4-pentafluoro-2-butyl, nonafluoro-n-butyl, nonafluoro-2-butyl, 2-fluoroethyl, 2-chloroethyl, 2-bromoethyl, 2-iodoethyl, 3-fluoro-n-propyl, 3-chloro-n-propyl, or 3-bromo-n-propyl.

The term "a C2-C6 alkenyl group" means an alkenyl group having 2 to 6 carbon atoms and a double bond in its carbon chain, such as vinyl, allyl, 2-butenyl, or 3-butenyl. The term "a C2-C6 haloalkenyl group" means a straight or branched alkenyl group having 2 to 6 carbon atoms and a double bond in its carbon chain and substituted by one or more halogen atoms which may be the same or different, such as 3,3-difluoro-2-propenyl, 3,3-dichloro-2-propenyl, 3,3-dibromo-2-propenyl, 2,3-dibromo-2-propenyl, 4,4-difluoro-3-butenyl, or 3,4,4-tribromo-3-butenyl.

The term "a C2-C6 alkynyl group" means an alkynyl group having 2 to 6 carbon atoms and a triple bond in its carbon chain, such as propargyl, 1-butyne-3-yl, or 1-butyne-3-methyl-3-yl. The term "a C2-C6 haloalkenyl group" means a straight or branched alkyenyl group having 2 to 6 carbon atoms and a triple bond in its carbon chain and substituted by one or more halogen atoms which may be the same or different.

The term "a C3-C8 cycloalkyl group" means a cycloalkyl group having 3 to 8 carbon atoms and a cyclic structure, such as cyclopropyl, cyclobutyl, cyclopentyl, 2-methylcyclopentyl, 3-methylcyclopentyl, cyclohexyl, 2-methylcyclohexyl, 3-methylcyclohexyl, or 4-methylcyclohexyl. The term "a C3-C8 halocycloalkyl group" means a cycloalkyl group having 3 to 8 carbon atoms and a cyclic structure and substituted by one or more halogen atoms which may be the same or different, such as 2,2,3,3-tetrafluorocyclobutyl, 2-chlorocyclohexyl, or 4-chlorocyclohexyl.

The term "a C1-C6 alkoxy group" means a straight or branched alkoxy group having 1 to 6 carbon atoms, such as methoxy, ethoxy, n-propyloxy, isopropyloxy, n-butoxy, s-butoxy, i-butoxy, or t-butoxy. The term "a C1-C6 haloalkoxy group" means a straight or branched haloalkoxy group having 1 to 6 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoromethoxy, pentafluoroethoxy, heptafluoro-n-propyloxy, heptafluoro-i-propyloxy, 1,1,1,3,3,3-hexafluoro-2-propyloxy, 2,2,2-trifluoroethoxy, 2-chloroethoxy, or 3-fluoro-n-propyloxy.

The term "a C1-C6 alkylthio group" means a straight or branched alkylthio group having 1 to 6 carbon atoms, such as methylthio, ethylthio, n-propylthio, i-propylthio, n-butylthio, s-butylthio, or t-butylthio. The term "a C1-C6 haloalkylthio group" means a straight or branched alkylthio group having 1 to 6 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoromethylthio, pentafluoroethylthio, 2,2,2-trifluoroethylthio, heptafluoro-n-propylthio, heptafluoro-i-propylthio, nonafluoro-n-butylthio, or nonafluoro-2-butylthio.

The term "a C1-C6 alkylsulfinyl group" means a straight or branched alkylsulfinyl group having 1 to 6 carbon atoms, such as methylsulfinyl, ethylsulfinyl, n-propylsulfinyl, i-propylsulfinyl, n-butylsulfinyl, s-butylsulfinyl, or t-butylsulfinyl. The term "a C1-C6 haloalkylsulfinyl group" means a straight or branched alkylsulfinyl group having 1 to 6 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoromethylsulfinyl, pentafluoroethylsulfinyl, 2,2,2-trifluoroethylsulfinyl, heptafluoro-n-propylsulfinyl, heptafluoro-i-propylsulfinyl, nonafluoro-n-butylsulfinyl, or nonafluoro-2-butylsulfinyl.

The term "a C1-C6 alkylsulfonyl group" means a straight or branched alkylsulfonyl group having 1 to 6 carbon atoms, such as methylsulfonyl, ethylsulfonyl, n-propylsulfonyl,

i-propylsulfonyl, n-butylsulfonyl, s-butylsulfonyl, or t-butylsulfonyl. The term "a C1-C6 haloalkylsulfonyl group" means a straight or branched alkylsulfonyl group having 1 to 6 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoromethylsulfonyl, pentafluoroethylsulfonyl, 2,2,2-trifluoroethylsulfonyl, heptafluoro-n-propylsulfonyl, heptafluoro-i-propylsulfonyl, nonafluoro-n-butylsulfonyl, or nonafluoro-2-butylsulfonyl.

The term "a C1-C4 alkylcarbonyl group" means a straight, branched, or cyclic alkylcarbonyl group having 1 to 4 carbon atoms, such as acetyl, propionyl, isopropylcarbonyl, or cyclopropylcarbonyl. The term "a C1-C4 haloalkylcarbonyl group" means a straight or branched alkylcarbonyl group having 1 to 4 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoroacetyl, pentafluoropropionyl, trichloroacetyl, chloroacetyl, bromoacetyl, or 3-chloropropionyl.

The term "a C1-C4 alkoxycarbonyl group" means a straight or branched alkoxycarbonyl group having 1 to 4 carbon atoms, such as methoxycarbonyl, ethoxycarbonyl, or isopropyloxycarbonyl.

The term "a C1-C4 alkylcarbonyloxy group" means a straight or branched alkylcarbonyloxy group having 1 to 4 carbon atoms, such as acetoxy or propionyloxy. The term "a C1-C4 alkylsulfonyloxy group" means a straight or branched alkylsulfonyloxy group having 1 to 4 carbon atoms, such as methylsulfonyloxy. The term "a C1-C4 haloalkylsulfonyloxy group" means a straight or branched alkylsulfonyloxy group having 1 to 4 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as trifluoromethylsulfonyloxy or pentafluoroethylsulfonyloxy.

The term "a C1-C4 alkylene group" means a straight or branched alkylene group having 1 to 4 carbon atoms, such as methylene, ethylene, propylene, dimethylmethylene, or isobutylene. The term "a C2-C4 alkenylene group" means a straight or branched alkenylene group having 2 to 4 carbon atoms and a double bond in its carbon chain. The term "a C3-C4 alkynylene group" means a straight or branched alkynylene having 3 to 4 carbon atoms and a triple bond in its carbon chain. The term "a C1-C4 haloalkylene group" means a straight or branched alkylene group having 1 to 4 carbon atoms and substituted by one or more halogen atoms which may be the same or different, such as chloromethylene, chloroethylene, dichloromethylene, or difluoromethylene.

The term "a C2-C4 haloalkenylene group" means a straight or branched alkynylene having 2 to 4 carbon atoms and a double bond in its carbon chain, and substituted by one or more halogen atoms which may be the same or different. The term "a C3-C4 haloalkynylene group" means a straight or branched alkynylene group having 3 to 4 carbon atoms and a triple bond in its carbon chain, and substituted by one or more halogen atoms which may be the same or different.

The term "a C1-C6 haloalkyl group which may be substituted by one ore more hydroxyl groups" means a straight or branched alkyl group having 1 to 6 carbon atoms and one or more hydroxyl groups in its carbon chain, and substituted by one or more halogen atoms which may be the same or different, such as 1,2,2,2-tetrafluoro-1-hydroxyethyl, 1,1,1,3,3,3-hexafluoro-2-hydroxy-2-propyl, 1,1,1,3,3,4,4,4-octafluoro-2-hydroxy-2-butyl, 1,2,2,3,3,4,4,4-octafluoro-1-hydroxy-n-butyl, or 1,3-dichloro-1,1,3,3-tetrafluoro-2-hydroxy-2-propyl.

The term "a substituted m-nitrobenzoyl group" means a m-nitrobenzoyl group having one or more substituents, such as 2-fluoro-3-nitrobenzoyl, 4-fluoro-3-nitrobenzoyl, 2-fluoro-5-nitrobenzoyl, or 4-chloro-3-nitrobenzoyl.

The compounds represented by formula (1) of the present invention may contain at least one asymmetric carbon atom or asymmetric center and thus have at least two types of optical isomers. The present invention includes the optical isomers and mixtures thereof at any proportions. The compounds represented by formula (1) of the present invention may contain at least two types of geometric isomers derived from carbon-carbon double bonds in the structural formulae. The present invention also includes the geometric isomers and mixtures thereof at any proportions.

Preferred examples of the substituents or atoms in the compounds represented by the formulae such as formula (1) of the present invention include the following:

Preferably, R_1 is C1-C6 alkyl, C1-C6 haloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, a C2-C6 alkynyl, C2-C6 haloalkynyl, C3-C8 cycloalkyl, C3-C8 halocycloalkyl, $-E_1-Z_1—R_4$ (wherein E_1 represents C1-C4 alkylene, C2-C4 alkenylene, C3-C4 alkynylene, C1-C4 haloalkylene, C2-C4 haloalkenylene, or C3-C4 haloalkynylene, R_4 represents a hydrogen atom, C1-C6 alkyl, C2-C6 alkenyl, C2-C6 alkynyl, C1-C6 haloalkyl, C2-C6 haloalkenyl, or C2-C6 haloalkynyl, and Z_1 represents —O—, —S—, —SO—, or —SO_2—), or $-E_2-R_6$ (wherein E_2 represents C1-C4 alkyl, C2-C4 alkenyl, C3-C4 alkynyl, C1-C4 haloalkyl, C2-C4 haloalkenyl, or C3-C4 haloalkynyl, and R_6 represents C3-C8 cycloalkyl, C3-C8 halocycloalkyl, cyano, nitro, hydroxyl, phenyl, substituted phenyl having one or more substituents which may be the same or different and which are selected from halogen, C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 alkoxy, C1-C6 haloalkoxy, C1-C6 alkylthio, C1-C6 haloalkylthio, C1-C6 alkylsulfinyl, C1-C6 haloalkylsulfinyl, C1-C6 alkylsulfonyl, C1-C6 haloalkylsulfonyl, cyano, nitro, hydroxyl, C1-C4 alkylcarbonyl, C1-C4 haloalkylcarbonyl, C1-C4 alkylcarbonyloxy, and C1-C4 alkoxycarbonyl, pyridyl, or substituted pyridyl having one or more substituents selected from halogen, C1-C6 haloalkyl, and C1-C6 haloalkoxy). More preferably, R_1 is C1-C6 alkyl, C1-C6 haloalkyl, C3-C8 cycloalkyl, C3-C8 halocycloalkyl, $-E_1-Z_1—R_4$ (wherein E_1 represents C1-C4 alkylene or C1-C4 haloalkylene, R_4 represents C1-C6 alkyl or C1-C6 haloalkyl, and Z_1 represents —O—, —S—, —SO—, or —SO_2—), or $-E_2-R_6$ (wherein E_2 represents C1-C4 alkyl, R_6 represents C3-C8 cycloalkyl, cyano, substituted phenyl having one or more substituents which may be the same or different and which are selected from halogen, C1-C6 haloalkyl, C1-C6 haloalkoxy, C1-C6 haloalkylthio, C1-C6 haloalkylsulfinyl, C1-C6 haloalkylsulfonyl, cyano, and nitro, pyridyl, substituted pyridyl having one or more substituents selected from halogen, C1-C6 haloalkyl, and C1-C6 haloalkoxy, thienyl, or tetrahydrofuryl).

Preferably, R_2 and R_3 are independently hydrogen or C1-C4 alkyl, and more preferably hydrogen, methyl, or ethyl.

Preferably, G_1, G_2, and G_3 are independently oxygen or sulfur, and more preferably oxygen.

Preferably, X is hydrogen, halogen or trifluoromethyl, and more preferably hydrogen or fluorine.

Preferably, n is 0 or 1.

Preferably, Q is phenyl, substituted phenyl having one or more substituents selected from halogen, C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 alkoxy, C1-C6 haloalkoxy, C1-C6 haloalkyl which may be substituted by one or more hydroxyl groups, C1-C6 alkylthio, C1-C6 haloalkylthio, C1-C6 alkylsulfinyl, C1-C6 haloalkylsulfinyl, C1-C6 alkylsulfonyl, pentafluorosulfanyl, cyano, and nitro, pyridyl, or substituted pyridyl having one or more substituents selected from halogen, C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 alkoxy, C1-C6 haloalkoxy, C1-C6 haloalkyl which may be substituted by one or more hydroxyl groups, C1-C6 alkylthio, C1-C6

haloalkylthio, C1-C6 alkylsulfinyl, C1-C6 haloalkylsulfinyl, C1-C6 alkylsulfonyl, C1-C6 haloalkylsulfonyl, pentafluorosulfanyl, cyano, and nitro. More preferably, Q is substituted phenyl or substituted pyridyl represented by formula (1-2) or (1-3). In the formula, preferably, Y_1 and Y_5 are independently hydrogen, C1-C4 alkyl, halogen, or methylthio, and excluding a case where both Y_1 and Y_5 represent a hydrogen atom.

Preferably, Y_2 and Y_4 are each hydrogen.

Preferably, Y_3 is C1-C6 haloalkyl, C1-C6 haloalkoxy, C1-C6 haloalkyl which may be substituted by one or more hydroxyl groups, C1-C6 haloalkylthio, C1-C6 haloalkylsulfinyl, C1-C6 haloalkylsulfonyl, or pentafluorosulfanyl. More preferably, Y_3 is C1-C6 haloalkyl, C1-C6 haloalkyl which may be substituted by one or more hydroxyl group, C1-C6 haloalkylthio, C1-C6 haloalkylsulfinyl, or C1-C6 haloalkylsulfonyl.

Preferably, Y_6 and Y_9 are independently hydrogen, C1-C4 alkyl, halogen, or methylthio, and excluding a case where both Y_6 and Y_9 represent a hydrogen atom.

Preferably, Y_7 is hydrogen.

Preferably, Y_8 is C1-C6 haloalkyl, C1-C6 haloalkoxy, C1-C6 haloalkyl which may be substituted by one or more hydroxyl groups, C1-C6 haloalkylthio, C1-C6 haloalkylsulfinyl, C1-C6 haloalkylsulfonyl, or pentafluorosulfanyl. More preferably, Y_8 is C1-C6 haloalkyl or C1-C6 haloalkoxy.

Preferably, Hal is chlorine.

Preferably, R_7 is C1-C6 haloalkyl, and more preferably R_7 is C1-C6 alkyl substituted by fluorine, such as pentafluoroethyl, heptafluoro-n-propyl, heptafluoroisopropyl, nonafluoro-n-butyl, or nonafluoro-2-butyl.

Preferably, Y_{10} and Y_{13} are independently hydrogen, C1-C4 alkyl, halogen, or methylthio, and excluding a case where both Y_{10} and Y_{13} represent a hydrogen atom. More preferably, Y_{10} and Y_{13} are each chlorine, bromine, or methyl.

Preferably, Y_1 and Y_{12} are each hydrogen.

Preferably, R_8 and R_9 are each hydrogen, C1-C4 alkyl, m-nitrobenzoyl, or 2-fluoro-3-nitrobenzoyl, and excluding a case where both R_8 and R_9 represent C1-C4 alkyl, m-nitrobenzoyl, or 2-fluoro-3-nitrobenzoyl.

Preferably, m is 0, 1, or 2.

Preferably, R_{10} is 1,2,2,2-tetrafluoro-1-hydroxyethyl, 1,1,1,3,3,3-hexafluoro-2-hydroxy-2-propyl, 1,1,1,3,3,4,4,4,4-octafluoro-2-hydroxy-2-butyl, 1,2,2,3,3,4,4,4-octafluoro-1-hydroxy-n-butyl, or 1,3-dichloro-1,1,3,3-tetrafluoro-2-hydroxy-2-propyl, and more preferably, R_{10} is 1,1,1,3,3,3-hexafluoro-2-hydroxy-2-propyl.

Preferably, Y_{14} and Y_{17} are independently hydrogen, C1-C4 alkyl, halogen, or methylthio, and excluding a case where both Y_{14} and Y_{17} represent a hydrogen atom. More preferably, none of Y_{14} and Y_{17} represents a hydrogen atom.

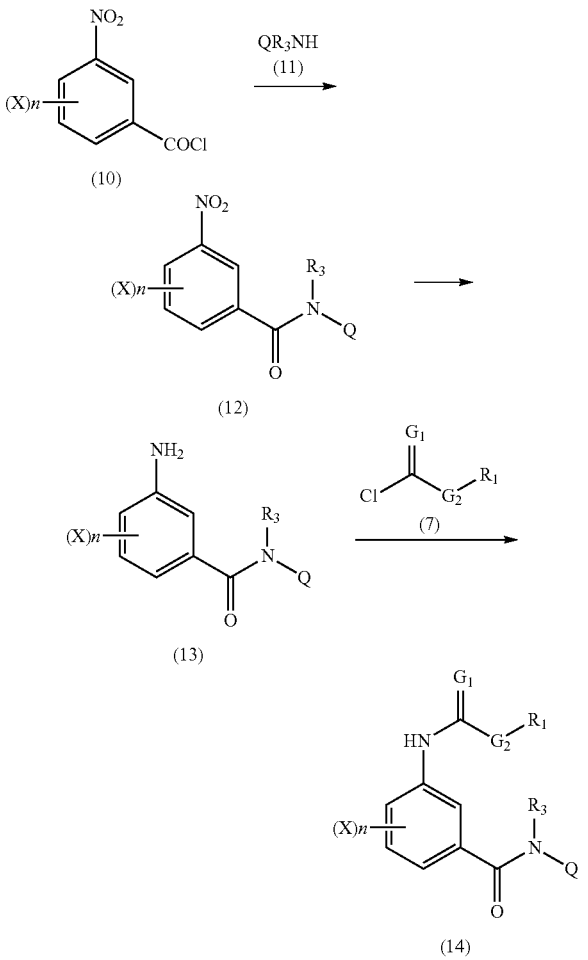
Preferably, Y_{15} and Y_{16} are each hydrogen.

Preferably, R_{11} and R_{12} are each hydrogen, C1-C4 alkyl, m-nitrobenzoyl, or 2-fluoro-3-nitrobenzoyl, and excluding a case where both R_{11} and R_{12} represent C1-C4 alkyl, m-nitrobenzoyl, or 2-fluoro-3-nitrobenzoyl.

Representative processes for producing the compounds of the present invention will be described below. Although the compounds of the present invention can be produced according to the methods, the production processes are not limited to the processes described below.

An embodiment of the representative processes for producing the compounds of the present invention is Production Method 1 (in the formula, R_1, R_3, G_1, G_2, (X)n, and Q represent the same as described above).

Production Method 1



1-(i) Formula (10)→Formula (12)

A m-nitrobenzoyl chloride derivative represented by formula (10) is reacted with an aromatic amine derivative represented by formula (11) in an appropriate solvent to produce a benzamide derivative represented by formula (12). In this step, an appropriate base can also be used. As the solvent, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. Examples of the base include organic bases such as triethylamine, tri-n-butylamine, pyridine, and 4-dimethylaminopyridine; alkali metal hydroxides such as sodium hydroxide and potassium hydroxide; carbonates such as sodium hydrogen carbonate and potassium carbonate; phosphates such as dipotassium hydrogen phosphate and trisodium phosphate; alkali metal hydrides such as sodium hydride; and alkali metal alcoholates such as sodium methoxide and sodium ethoxide.

The base may be used in an appropriate amount in the range of molar equivalents of 0.01 to 5 times the amount of the compound represented by formula (10). The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours. The m-nitrobenzoyl chloride derivative represented by formula (10) can be easily produced from a m-nitrobenzoic acid derivative by a conventional method using a halogenating agent. Examples of the halogenating agent include thionyl chloride, thionyl bromide, phosphorus oxychloride, oxalyl chloride, and phosphorus trichloride. In a process for producing the compound represented by formula (12) using the m-nitrobenzoic acid derivative and the compound represented by formula (11) without using a halogenating agent, 1-hydroxybenzotriazole functioning as an additive, and N,N'-dicyclohexyl carbodiimide functioning as a condensing agent can be used according to the technique disclosed in, for example, Chem. Ber. p. 788 (1970). Other examples of the condensing agent include 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide and 1,1'-carbonyl-bis-1H-imidazole. Alternatively, the compound represented by formula (12) can be produced by a mixed acid anhydride technique using a chloroformic acid ester according to the technique disclosed in J. Am. Chem. Soc. p. 5012 (1967). Examples of the chloroformic acid ester include isobutyl chloroformate and isopropyl chloroformate. Instead of the chloroformic acid ester, diethylacetyl chloride or trimethylacetyl chloride can be used. In the technique using the condensing agent and the mixed acid anhydride technique, the solvent, the reaction temperature, and the reaction time are not limited to those disclosed in the above documents, and an inert solvent which does not inhibit the progress of reaction may be appropriately used. Also, the reaction temperature and the reaction time may be appropriately selected according to the progress of reaction.

1-(ii) Formula (12)→Formula (13)

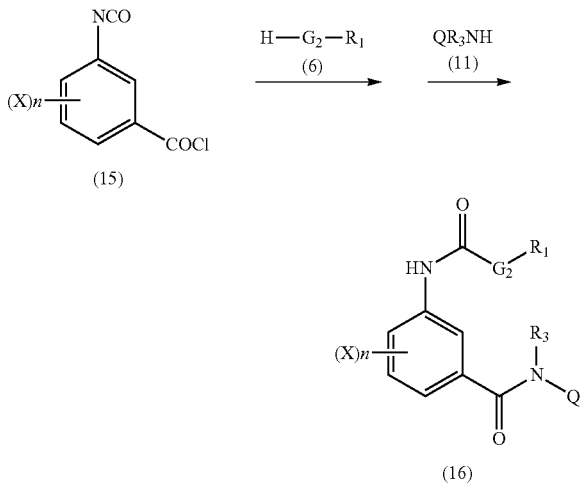
The benzamide derivative having a nitro group represented by formula (12) can be converted to a benzamide derivative having an amino group represented by formula (13) by reduction reaction. Examples of a technique for the reduction reaction include a technique using hydrogenation and a technique using tin(II) chloride (anhydride). In the former technique, reaction can be performed in a hydrogen atmosphere in the presence of a catalyst in a proper solvent under normal pressure or high pressure. Examples of the catalyst include palladium catalysts such as palladium-carbon, nickel catalysts such as Raney nickel, cobalt catalysts, ruthenium catalysts, rhodium catalysts, and platinum catalysts. Examples of the solvent include water, alcohols such as methanol and ethanol; aromatic hydrocarbons such as benzene and toluene; chained or cyclic ethers such as ethers, dioxane, and tetrahydrofuran; and esters such as ethyl acetate. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours. As a result, the compound represented by formula (13) can be produced. In the latter technique, the conditions are not limited, and the compound represented by formula (13) can be produced under the conditions described in, for example, Organic Syntheses, Coll. Vol. III, p. 453.

1-(iii) Formula (13)→Formula (14)

The benzamide derivative having a amino group represented by formula (13) is reacted with a compound represented by formula (7) (for example, a chloroformic ester, a chlorothioformic ester, or a chlorodiformic thioester) in a proper solvent to produce a compound represented by formula (14) of the present invention. In this step, an appropriate base can also be used. As the solvent, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated. hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. Examples of the base include organic bases such as triethylamine, tri-n-butylamine, pyridine, and 4-dimethylaminopyridine; alkali metal hydroxides such as sodium hydroxide and potassium hydroxide; carbonates such as sodium hydrogen carbonate and potassium carbonate; phosphates such as dipotassium hydrogen phosphate and trisodium phosphate; alkali metal hydrides such as sodium hydride; and alkali metal alcoholates such as sodium methoxide and sodium ethoxide. The base may be used in an appropriate amount in the range of molar equivalents of 0.01 to 5 times the amount of the compound represented by formula (13). The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

A compound represented by formula (16) of the present invention can be produced by Production Method 2 (in the formula, R_1, R_3, G_2, (X)n, and Q represent the same as described above) using a 3-isocyanatobenzoly chloride represented by formula (15) as a starting material, an alcohol represented by formula (6), a thiol, and an aromatic amine represented by formula (11) according to the technique disclosed in J. Org. Chem., p. 142 (1966).

Production Method 2

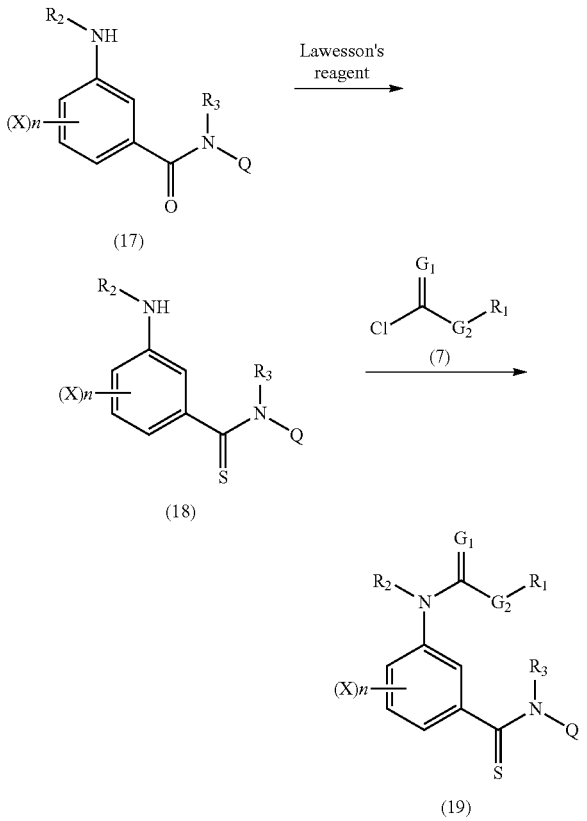


In this step, a solvent can be used. As the solvent, any solvent other than the solvents described in the above document can be used as long as it does not significantly inhibit the progress of reaction. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters

such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. Also, a base may be added for accelerating the reaction. Examples of the base other than those disclosed in the above document include organic bases such as triethylamine, pyridine, and 4-dimethylaminopyridine; and inorganic bases such as potassium carbonate. The base may be used in an appropriate amount in the range of molar equivalents of 0.01 to 5 times the amount of the compound represented by formula (15). The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several 10 minutes to 96 hours.

A thioamide compound can be produced from a compound represented by formula (17) using a Lawson reagent according Production Method 3 (in the formula, R_1, R_2, R_3, G_1, G_2, (X)n, and Q represent the same as described above).

Production Method 3



3-(i) Formula (17)→Formula (18)

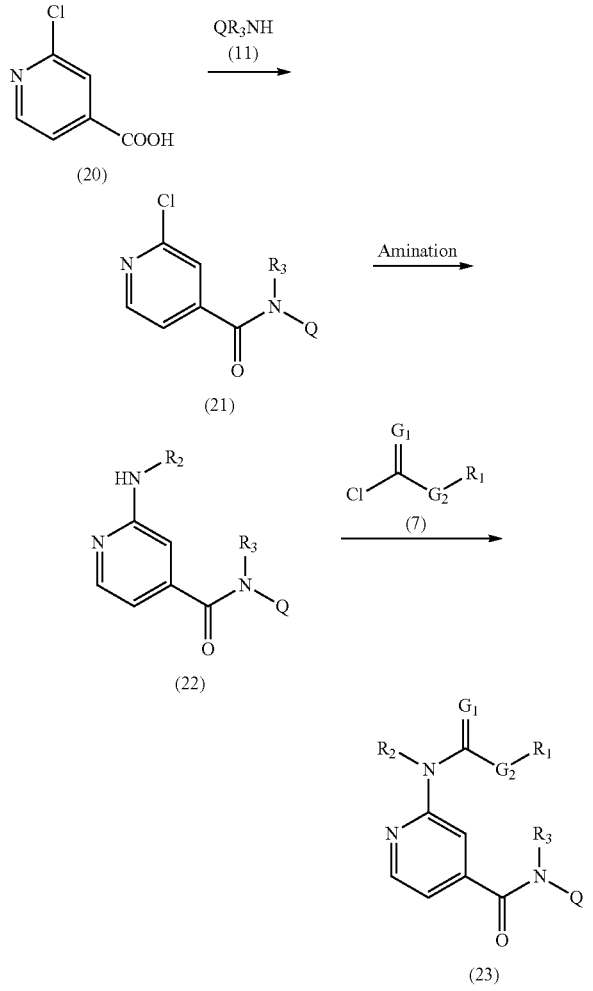
The reaction can be performed under the conditions described in Synthesis, p. 463 (1993) and Synthesis, p. 829 (1984), but the conditions such as a solvent are not limited to those described in these documents.

3-(ii) Formula (18)→Formula (19)

A compound represented by formula (19) of the present invention can be produced using a compound represented by formula (7) (for example, a chloroformic ester or a chlorothioformic ester) under the conditions properly selected from the reaction conditions described above in the step 1-(iii) of Production Method 1.

A chloropyridinecarboxylic acid can be used as a starting material. For example, a compound represented by formula (23) can be produced from a chloropyridinecarboxylic acid represented by formula (20) according to Production Method 4 (in the formula, R_1, R_2, R_3, Q, G_1, and G_2 represent the same as described above).

Production Method 4



4-(i) Formula (20)→Formula (21)

A compound represented by formula (20) is halogenated in the presence or absence of an inert solvent and then reacted with an aromatic amine represented by formula (11) to produce a compound represented by formula (21). As the solvent usable in the halogenation step, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture

of two ore more kinds. Examples of a halogenating agent include thionyl chloride, thionyl bromide, phosphorus oxychloride, oxalyl chloride, and phosphorus trichloride. The amount of the halogenating agent used may be appropriately determined in the range of molar equivalents of 1 to 10 times the amount of the compound represented by formula (20). Also, N,N-dimethylformamide may be added as an auxiliary for accelerating the reaction. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours. As the solvent usable in the amidation step, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. Also, a base may be added for accelerating the progress of reaction. Examples of the base include organic bases such as triethylamine, pyridine, 4-dimethylaminopyridine; and inorganic bases such as potassium carbonate. The amount of the base used may be appropriately determined in the range of molar equivalents of 0.01 to 5 times the amount of the compound represented by formula (11). The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

A process for producing a compound represented by formula (21) from a compound represented by formula (20) and a compound represented by formula (11) without using a halogenating agent is presented by a process according to the technique disclosed in, for example, Chem. Ber., p. 788 (1970) where 1-hydroxybenzotriazole as an additive and N,N'-dicyclohexyl carbodiimide as a condensing agent are used, respectively. Other examples of the condensing agent include 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide, and 1,1'-carbonyl-bis-1H-imidazole. The compound represented by formula (21) can also be produced by a mixed acid anhydride technique using a chloroformic ester according to the technique disclosed in J. Am. Chem. Soc., p. 5012 (1967). Examples of a chloroformic ester include isobutyl chloroformate and isopropyl chloroformate. A compound other than a chloroformic ester, for example, diethylacetyl chloride or trimethylacetyl chloride, can also be used. In the technique using the condensing agent and the mixed acid anhydride technique, the solvent, the reaction temperatures, and the reaction times are not limited to those disclosed in the above documents, and an inert solvent which does not significantly inhibit the progress of reaction may be appropriately used. Also, the reaction temperature and the reaction time may be appropriately selected according to the progress of reaction.

4-(ii) Formula (21)→Formula (22)

A compound represented by formula (22) can be produced by amination with ammonia according to the conditions described in, for example, J. Org. Chem., p. 280(1958). The conditions such as the reaction solvent are not limited to those disclosed in the above document, and an inert solvent which does not significantly inhibit the progress of reaction may be appropriately used. Also, the reaction temperature and the reaction time may be appropriately selected according to the progress of reaction. As an aminating agent, methylamine or ethylamine can be used instead of ammonia.

4-(iii) Formula (22)→Formula (23)

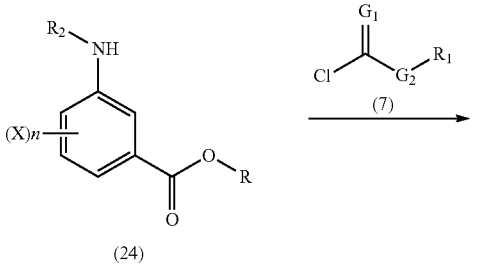
A compound represented by formula (23) of the present invention can be produced by using a compound represented by formula (7) (for example, a chloroformic ester or a chlorothioformic ester) under the conditions appropriately selected from the reaction conditions described above in the step 1-(iii) of Production Method 1.

Even when another nitrogen-containing aromatic carboxylic acid such as 4-chloropyridine-2-carboxlic acid or 6-chloropyridine-2-carboxylic acid is selected as a starting material, the compound of the present invention can be produced according to Production Method 4. In the use of the former starting material, a compound represented by formula (1) wherein A_1 is a nitrogen atom, and A_2, A_3, and A_4 are each a carbon atom can be produced. In the use of the latter starting material, a compound represented by formula (1) wherein A_1, A_2, and A_3 are each a carbon atom, and A_4 is a nitrogen atom can be produced.

The compound represented by formula (23) is reacted with an appropriate oxidizing agent to produce a corresponding pyridine-N-oxide derivative according to the conditions disclosed in, for example, J. Org. Chem., p. 8576 (1999). Examples of the oxidizing agent include organic peroxy acids such as m-chloroperoxybenzoic acid; sodium metaperiodate; hydrogen peroxide; ozone; selenium dioxide, chromic acid; dinitrogen tetraoxide; acyl nitrate; iodine; bromine; N-bromosuccinimide; iodosylbenzene; and t-butyl hypochlorite. The solvent used in this step is not limited to those disclosed in the above document, and any solvent which does not significantly inhibit the progress of reaction may be used. The solvents can be used alone or in a mixture of one or more kinds. In particular, a polar solvent is preferred. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

A compound represented by formula (27) of the present invention can be produced from a easily available m-aminobenzoic ester derivative presented by formula (24) according to Production Method 5 (in the formula, R_1, R_2, R_3, G_1, G_2, (X)n, and Q represent the same as described above, and R represents a lower alkyl group)

Production Method 5



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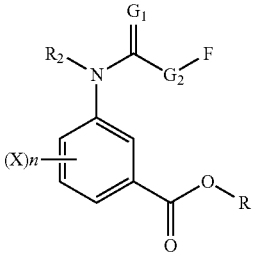

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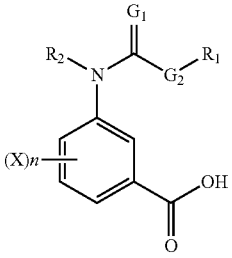

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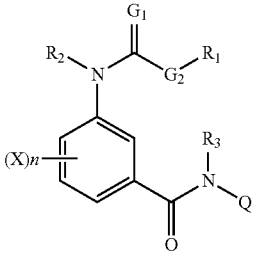


(27)

5-(i) Formula (24)→Formula (25)

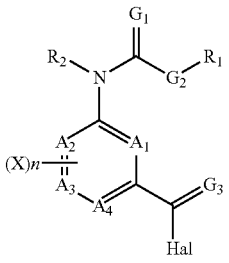
A compound represented by formula (25) can be produced by using a compound represented by formula (7) (for example, a chloroformic ester or a chlorothioformic ester) under the conditions appropriately selected from the reaction conditions described above in the step 1-(iii) of Production Method 1.

5-(ii) Formula (25)→Formula (26)

A compound represented formula (26) can be produced by hydrolysis with an alkali metal hydroxide such as sodium hydroxide or potassium hydroxide, an alkali earth metal hydroxide such as calcium hydroxide, or an inorganic acid such as hydrochloric acid or sulfuric acid according to a conventional technique.

5-(iii) Formula (26)→Formula (27)

A compound represented by formula (27) of the present invention can be produced by condensation reaction under appropriate conditions according to the technique described above in the step 4-(i) of Production Method 4. Among the techniques described in the step 4-(i), in the technique using a halogenating agent, the compound represented by formula (27) can be produced through a compound represented by formula (2):

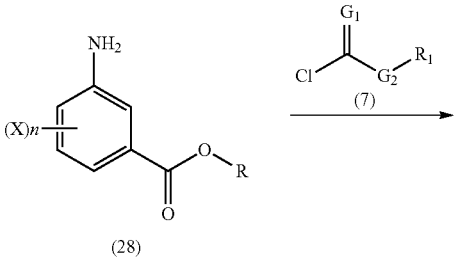


(2)

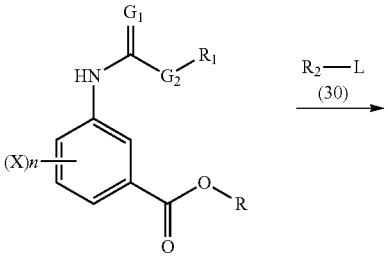
(wherein A_1, A_2, A_3, A_4, G_1, G_2, G_3, (X)n, and Hal each represent the same as described above). The halogenation step and the amidation step can be performed under reaction conditions according to the technique described above in the step 4-(i).

The compound represented by formula (27) of the present invention can be produced from a m-aminobenzoic acid ester represented by formula (28) according to Production Method 6 below (in the formula, R_1, R_2, R_3, G_1, G_2, (X)n, and Q each represent the same as described above, R represents a lower alkyl group, and L represents a functional group having leaving ability, such as halogen, methanesulfonyloxy, or trifluoromethanesulfonyloxy).

Production Method 6



(28)



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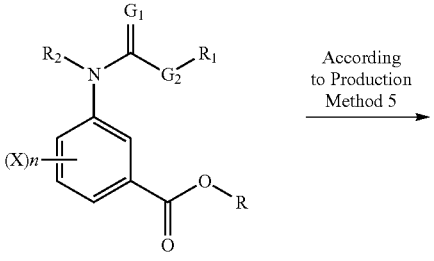

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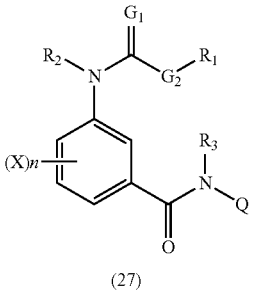


(27)

6-(i) Formula (28)→Formula (29)

A compound represented formula (29) can be produced by the technique described above in the step 1-(iii) of Production Method 1 using a compound represented by formula (7) (for example, a chloroformic ester or a chlorothioformic ester) under appropriate conditions.

6-(ii) Formula (29)→Formula (25)

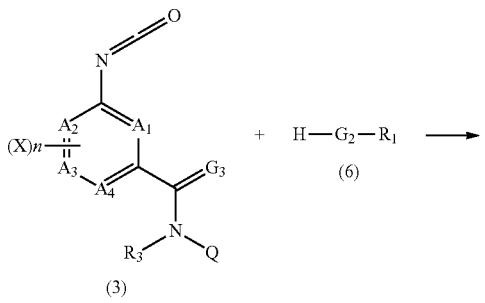
In this step, examples of a compound represented by formula (30) include alkyl halides such as methyl iodide and ethyl iodide; toluenesulfonic esters; methanesulfonic esters; and alkylating agents such as dimethyl sulfate. As a solvent, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. Also, a base may be added for accelerating the progress of reaction. Examples of the base include organic bases such as triethylamine, pyridine, and 4-dimethylaminopyridine; inorganic bases such as potassium carbonate, sodium hydroxide, and potassium hydroxide; and alkali metal hydrides such as sodium hydride. The amount of the base used may be appropriately determined in the range of molar equivalents of 0.01 to 5 times the amount of the compound represented by formula (29). The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

6-(iii) Formula (25)→Formula (27)

A compound represented by formula (27) of the present invention can be produced by the techniques described above in the steps 5-(ii) and 5-(iii) of Production Method 5 under appropriate conditions.

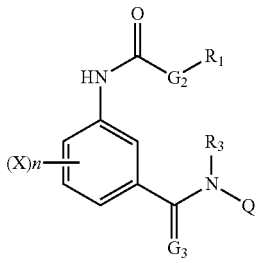
A compound represented by formula (31) of the present invention can be produced according to Production Method 7 (in the formula, A_1, A_2, A_3, A_4, R_1, R_3, G_2, G_3, and (X)n each represent the same as described above).

Production Method 7



(3)

(6)

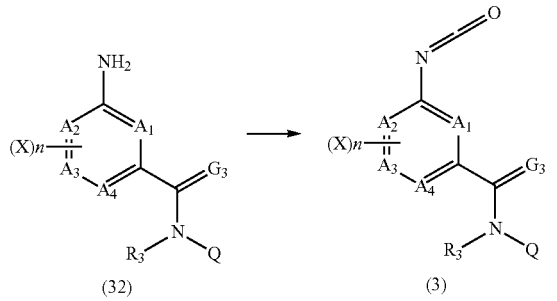


(31)

In this step, an appropriate solvent may be used. As the solvent, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. Also, an appropriate base may be used. Examples of the base include organic bases such as triethylamine, tri-n-butylamine, pyridine, 4-dimethylaminopyridine; alkali metal hydroxides such as sodium hydroxide and potassium hydroxide; carbonates such as sodium hydrogen carbonate and potassium carbonate; alkali metal hydrides such as sodium hydride; and alkali metal alcoholates such as sodium methoxide and sodium ethoxide. The amount of the base used may be appropriately determined in the range of molar equivalents of 0.01 to 5 times the amount of the compound represented by formula (6). The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

An isocyanate compound represented by formula (3) can be produced by Production Method 8 (in the formula, A_1, A_2, A_3, A_4, G_3, R_3, (X)n, and Q each represent the same as described above) using a m-aminobenzamide derivative or a m-aminopyridinecarboxamide derivative represented by formula (32) as a starting material.

Production Method 8

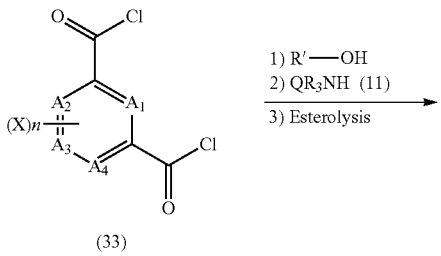


(32) (3)

In this step, reaction can be performed by using phosgene according to the technique described in Organic Syntheses, Coll., Vol. II, p. 453. An isocyanate compound represented by formula (3) can also be produced by using a phosgene dimmer, triphosgene, or oxalyl chloride instead of phosgene. In this step, an appropriate solvent may be used. As the solvent, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

An isocyanate compound represented by formula (3) can also be produced by Production Method 9 (in the formula, A_1, A_2, A_3, A_4, G_3, R_3, (X)n, and Q each represent the same as described above) utilizing Curtius rearrangement reaction with an isophthaloyl chloride derivative represented by formula (33) used as a starting material according to the technique described in Macromolecules, p. 1046 (1998).

Production Method 9



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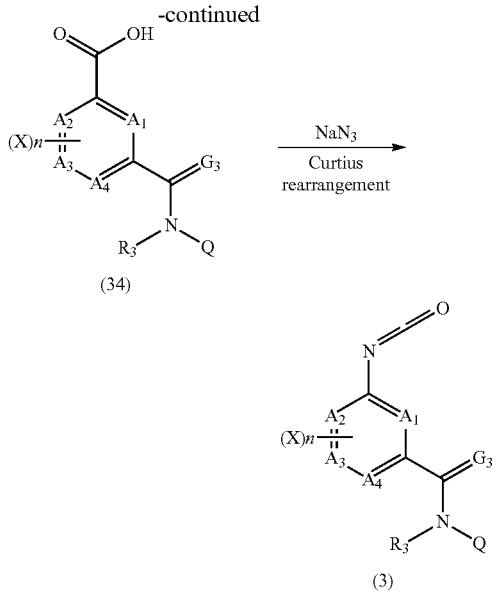
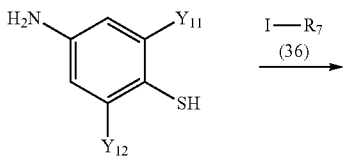


(34) (3)

In this step, an appropriate solvent may be used. As the solvent, any solvent which does not significantly inhibit the progress of reaction can be used. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone. These solvents can be used alone or in a mixture of two ore more kinds. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours. In producing a compound represented formula (34), ethanol, propanol, or benzyl alcohol can be used as an alcohol. In esterolysis, hydrolysis or catalytic hydrogen reduction can be performed by a conventional technique.

An aniline derivative represented by formula (39) can be produced by using an aminothiophenol derivative as a starting material according Production Method 10 (in the formula, R_7, Y_{11}, Y_{12}, and m each represent the same as described above, Y_{10} and Y_{13} each represent a hydrogen atom or a halogen atom except a case in which both groups are hydrogen atoms as far as this Method is concerned, Y_{10a} and Y_{13a} each represent a hydrogen atom, a halogen atom, or a methyl group as far as this Method is concerned, and one of Y_{10a} and Y_{13a} necessarily represents a methyl group).

Production Method 10



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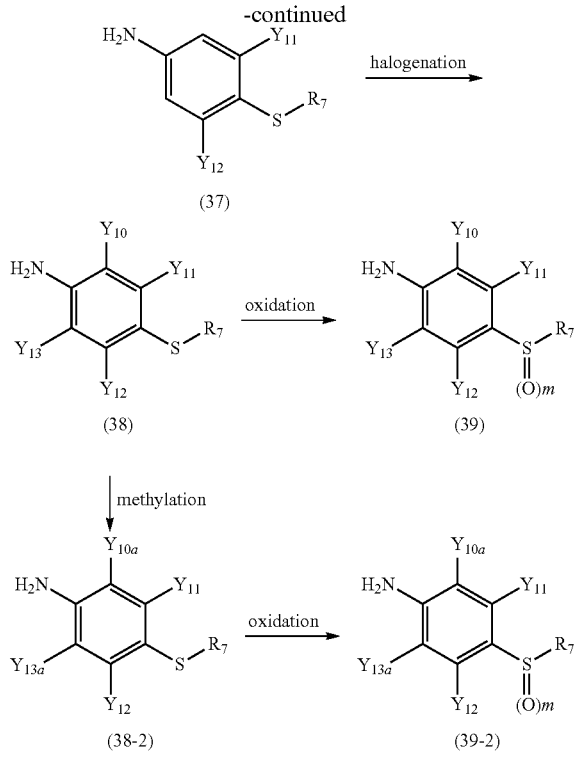


(37) (38) (39) (38-2) (39-2)

10-(i) Formula (35)→Formula (37)

A compound represented by formula (38) can be produced by reaction of aminothiophenol represented by formula (35) with a haloalkyl iodide represented by formula (36) according to the method described in J. Fluorine Chem., p. 207 (1994).

Examples of a haloalkyl iodide represented by formula (36) include trifluoromethyl iodide, pentafluoroethyl iodide, heptafluoro-n-propyl iodide, heptafluoroisopropyl iodide, nonafluoro-n-butyl iodide, and nonafluoro-2-butyl iodide. The amount of the haloalkyl iodide used may be appropriately determined in the range of molar equivalents of 1 to 10 times the amount of the compound represented formula (35). The solvent used in this step is not limited to those described in the above document, and any solvent which does not significantly inhibit the progress of reaction can be used as the solvent. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone and hexamethylphosphoric triamide. These solvents can be used alone or in a mixture of two ore more kinds. In particular, a polar solvent is preferred. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

10-(ii) Formula (37)→Formula (38)

A compound represented by formula (38) can be produced by using an appropriate halogenating agent according to the technique described in, for example, Synth. Commun., p. 1261 (1989).

Examples of the halogenating agent include chlorine, bromine, iodine, N-chlorosuccinimde, N-bromosuccinimide, and N-iodosuccinimide. The amount of the halogenating agent used may be appropriately determined in the range of molar equivalents of 1 to times the amount of the compound represented formula (37). The number of equivalents of the halogenating agent used can be appropriately determined so that only Y_{10} or Y_{13} is a halogen atom. In this step, an appropriate solvent may be used. The solvent used is not limited to those described in the above document, and any solvent which does not significantly inhibit the progress of reaction can be used as the solvent. Examples of the solvent include aromatic hydrocarbons such as benzene, toluene, and xylene; halogenated hydrocarbons such as dichloromethane, chloroform, and carbon tetrachloride; chained or cyclic ethers such as diethyl ether, dioxane, tetrahydrofuran, and 1,2-dimethoxyethane; esters such as ethyl acetate and butyl acetate; ketones such as acetone, methyl isobutyl ketone, and cyclohexanone; amides such as dimethylformamide and dimethylacetamide; nitriles such as acetonitrile; and inert solvents such as 1,3-dimethyl-2-imidazolidinone and hexamethylphosphoric triamide. These solvents can be used alone or in a mixture of two ore more kinds. In particular, a polar solvent is preferred. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

10-(iii) Formula (38)→Formula (39)

A compound represented by formula (39) can be produced by using an appropriate oxidizing agent according to the technique described in, for example, Tetrahedron Lett., p. 4955 (1994). Examples of the oxidizing agent include organic peroxy acids such as m-chloroperoxybenzoic acid; sodium metaperiodate; hydrogen peroxide; ozone; selenium dioxide, chromic acid; dinitrogen tetraoxide; acyl nitrate; iodine; bromine; N-bromosuccinimide; iodosylbenzene; and t-butyl hypochlorite. The solvent used in this step is not limited to those disclosed in the above document, and any solvent which does not significantly inhibit the progress of reaction may be used. The solvents can be used alone or in a mixture of one or more kinds. In particular, a polar solvent is preferred. The reaction temperature may be appropriately determined in the range of −20° C. to the reflux temperature of the solvent used, and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

10-(iv) Formula (38)→Formula (38-2)

A compound represented by formula (38-2) (wherein R_7, Y_{11}, Y_{12}, and m each represent the same as described above, Y_{10a} and Y_{13a} each represent a hydrogen atom, a halogen atom, or a methyl group as far as this step is concerned, and one of Y_{10a} and Y_{13a} necessarily represents a methyl group) can be produced from the compound represented by formula (38) using an appropriate methylating agent. This step can be performed according to the technique described in, for example, Tetrahedron. Lett., p. 6237 (2000).

10-(v) Formula (38-2)→Formula (39-2)

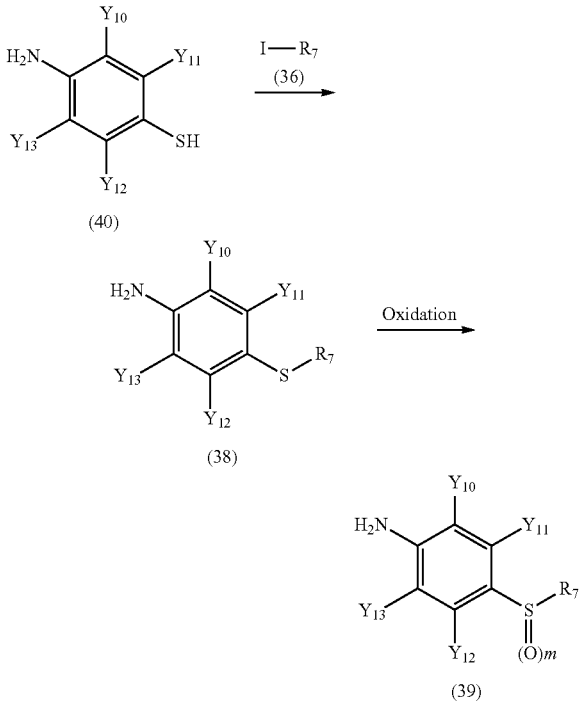
A compound represented by formula (39-2) (wherein R_7, Y_{11}, Y_{12}, and m each represent the same as described above, Y_{10a} and Y_{13a} both represent a methyl group or one of Y_{10a} and Y_{13a} represents a methyl group and the other represents a halogen atom as far as this step is concerned) can be produced according to the technique descried above in the step 10-(iii) of Production Method 10.

The compounds represented by formula (1), (3), (4), and (8) can be produced from aniline derivatives represented by

formula (38), (39), (38-2) and (39-2) according to any one Method appropriately selected from Production Methods 1 to 9.

The compound represented by formula (39) can also be produced from an aminothiophenol represented by formula (40) according to Production Method 11 (in the formula, R_7, Y_{10}, Y_{11}, Y_{12}, Y_{13}, and m each represent the same as described above).

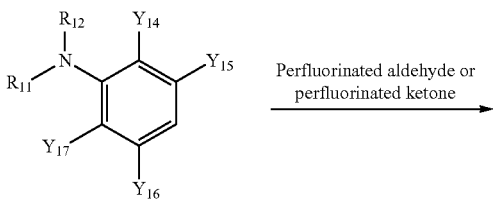
Production Method 11



Reaction with a haloalkyl iodide and subsequent oxidation can be performed according to Production Method 10. The compounds represented by formula (1), (3), (4), and (8) can be produced from aniline derivatives represented by formula (41) and (42) according to any one Method appropriately selected from Production Methods 1 to 9.

A compound represented by formula (9) can also be produced from an aniline derivative represented by formula (41) and used as a starting material according to Production Method 12 (in the formula, R_{10}, R_{11}, R_{12}, Y_{14}, Y_{15}, Y_{16}, and Y_{17} each represent the same as described above).

Production Method 12



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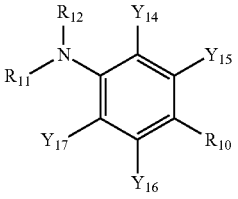


A compound represented by formula (9) can be produced by using an appropriate perfluorinated aldehyde or perfluorinated ketone according to the technique described in, for example, J. Am. Chem. Soc., p. 2410 (1965) and J. Org. Chem., p. 1001 (1965). Examples of the perfluorinated aldehyde or perfluorinated ketone include hexafluoroacetone and perfluoro-2-butanone. In this step, an appropriate solvent can be used. The solvent used in this step is not limited to those disclosed in the above documents, and any solvent which does not significantly inhibit the progress of reaction may be used. The solvents can be used alone or in a mixture of one or more kinds. The reaction temperature may be appropriately determined in the range of −20° C. to 200° C., and the reaction time may be appropriately determined in the range of several minutes to 96 hours.

The compounds represented by formula (1), (3), and (4) can be produced from an aniline derivative represented by formula (9) according to any one properly selected from Production Methods 1 to 9.

In all the production Methods, the compounds may be isolated from the reaction systems after reactions according to a normal technique. However, the compounds can be optionally purified by an operation such as recrystallization, column chromatography, distillation, or the like. Alternatively, the compounds may be used in next reaction steps without being isolated from the reaction systems.

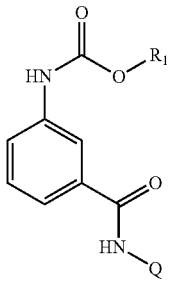
Although typical examples of the compounds represented by formula (1) and used as active ingredients of insecticides of the present invention are shown in Tables 1 to 5, the present invention is not limited to these examples.

Although typical examples of the compounds represented by formula (4) are shown in Tables 6 to 8, the present invention is not limited to these examples.

In the tables, "n-" denotes normal, "Me" denotes a methyl group, "Et" denotes an ethyl group; "n-Pr" denotes a normal propyl group, "i-Pr, denotes an isopropyl group, "n-Bu" denotes a normal butyl group, "i-Bu" denotes an isobutyl group, "s-Bu" denotes a 15 secondary butyl group, "t-Bu" denotes a tertiary butyl group, "H" denotes a hydrogen atom, "0" denotes an oxygen atom, "S" denotes a sulfur atom, "C" denotes a carbon atom, "N" denotes a nitrogen atom, "F" denotes a fluorine atom, "C1" denotes a chlorine atom, "Br" denotes a bromine atom, "I" denotes an iodine atom, "CF_3" denotes a trifluoromethy group, "MeO" denotes a methoxy group, "NH_2" denotes an amino group, "MeNH" denotes a methylamino group, and "Me_2N" denotes a dimethylamino group.

TABLE 1

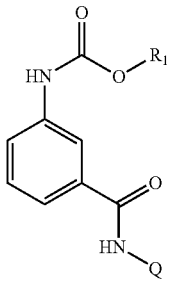
(1-A)



Compound No.	R_1	Q
1	Me	2-methyl-4-heptafluoroisopropylphenyl
2	Et	2-methyl-4-heptafluoroisopropylphenyl
3	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
4	n-Bu	2-methyl-4-heptafluoroisopropylphenyl
5	i-Bu	2-methyl-4-heptafluoroisopropylphenyl
6	s-Bu	2-methyl-4-heptafluoroisopropylphenyl
7	t-Bu	2-methyl-4-heptafluoroisopropylphenyl
8	neopentyl	2-methyl-4-heptafluoroisopropylphenyl
9	3,3-dimethyl-n-butyl	2-methyl-4-heptafluoroisopropylphenyl
10	2-ethyl-n-hexyl	2-methyl-4-heptafluoroisopropylphenyl
11	vinyl	2-methyl-4-heptafluoroisopropylphenyl
12	allyl	2-methyl-4-heptafluoroisopropylphenyl
13	2-isopropyl-5-methylcyclohexyl	2-methyl-4-heptafluoroisopropylphenyl
14	benzyl	2-methyl-4-heptafluoroisopropylphenyl
15	3-cyanobenzyl	2-methyl-4-heptafluoroisopropylphenyl
16	4-cyanobenzyl	2-methyl-4-heptafluoroisopropylphenyl
17	2-methoxyethyl	2-methyl-4-heptafluoroisopropylphenyl
18	chloromethyl	2-methyl-4-heptafluoroisopropylphenyl
19	2-chloroethyl	2-methyl-4-heptafluoroisopropylphenyl
20	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
21	1,2,2,2-tetrachloroethyl	2-methyl-4-heptafluoroisopropylphenyl
22	1,1-dimethyl-2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
23	3-trifluoromethylphenyl	2-methyl-4-heptafluoroisopropylphenyl
24	4-methylphenyl	2-methyl-4-heptafluoroisopropylphenyl
25	4-chlorophenyl	2-methyl-4-heptafluoroisopropylphenyl
26	cyclobutyl	2-methyl-4-heptafluoroisopropylphenyl
27	cyclopentyl	2-methyl-4-heptafluoroisopropylphenyl
28	2-cyanoethyl	2-methyl-4-heptafluoroisopropylphenyl
29	2-(ethylthio)ethyl	2-methyl-4-heptafluoroisopropylphenyl
30	2-(ethylsulfinyl)ethyl	2-methyl-4-heptafluoroisopropylphenyl
31	2-(ethylsulfonyl)ethyl	2-methyl-4-heptafluoroisopropylphenyl
32	2-fluoroethyl	2-methyl-4-heptafluoroisopropylphenyl
33	2,2-difluoroethyl	2-methyl-4-heptafluoroisopropylphenyl
34	2,2,2-trifluoroethyl	2-methyl-4-heptafluoroisopropylphenyl
35	1,3-difluoro-2-propyl	2-methyl-4-heptafluoroisopropylphenyl
36	1-chloro-3-fluoro-2-propyl	2-methyl-4-heptafluoroisopropylphenyl
37	1-methyl-2,2,2-trifluoro-2-propyl	2-methyl-4-heptafluoroisopropylphenyl
38	3,3,3-trifluoro-n-propyl	2-methyl-4-heptafluoroisopropylphenyl
39	3,3,4,4,4-pentafluoro-2-butyl	2-methyl-4-heptafluoroisopropylphenyl
40	4,4,4-trifluoro-n-butyl	2-methyl-4-heptafluoroisopropylphenyl
41	2,2,3,3-tetrafluorocyclobutyl	2-methyl-4-heptafluoroisopropylphenyl
42	2,2-dichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
43	1,3-dichloro-2-propyl	2-methyl-4-heptafluoroisopropylphenyl
44	3-chloro-n-propyl	2-methyl-4-heptafluoroisopropylphenyl
45	3,3,3-trichloro-n-propyl	2-methyl-4-heptafluoroisopropylphenyl
46	2-bromoethyl	2-methyl-4-heptafluoroisopropylphenyl
47	2,2,2-tribromoethyl	2-methyl-4-heptafluoroisopropylphenyl
48	2-iodoethyl	2-methyl-4-heptafluoroisopropylphenyl
49	tetrahydrofuran-3-yl	2-methyl-4-heptafluoroisopropylphenyl
50	(furan-2-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
51	(furan-3-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
52	(tetrahydrofuran-2-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
53	(tetrahydrofuran-3-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
54	(thiophen-2-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
55	(thiophen-3-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
56	(pyridin-2-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
57	(pyridin-3-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
58	(6-chloropyridin-3-yl)methyl	2-methyl-4-heptafluoroisopropylphenyl
59	Me	2,6-dimethyl-4-heptafluoroisopropylphenyl
60	Et	2,6-dimethyl-4-heptafluoroisopropylphenyl
61	n-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
62	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
63	n-Bu	2,6-dimethyl-4-heptafluoroisopropylphenyl

TABLE 1-continued

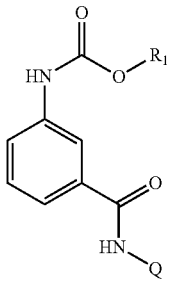
(1-A)



Compound No.	R_1	Q
64	i-Bu	2,6-dimethyl-4-heptafluoroisopropylphenyl
65	s-Bu	2,6-dimethyl-4-heptafluoroisopropylphenyl
66	t-Bu	2,6-dimethyl-4-heptafluoroisopropylphenyl
67	neopentyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
68	1,2-dimethyl-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
69	1-methyl-n-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
70	1,3-dimethyl-n-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
71	3,3-dimethyl-n-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
72	cyclopentylmethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
73	1-phenylethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
74	2-phenylethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
75	vinyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
76	allyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
77	propargyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
78	cyclobutyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
79	cyclopentyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
80	cyclohexyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
81	benzyl	2,6-dimethyl-4-heptanuoroisopropylphenyl
82	4-methylbenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
83	4-trifluoromethylbenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
84	3-cyanobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
85	4-cyanobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
86	2-fluorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
87	3-fluorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
88	4-fluorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
89	2-chlorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
90	3-chlorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
91	4-chlorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
92	4-nitrobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
93	4-methoxycarbonylbenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
94	2-hydroxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
95	2-methoxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
96	2-ethoxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
97	2-isopropyloxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
98	2-benzyloxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
99	3-ethoxy-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
100	ethoxycarbonylmethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
101	1-(methoxycarbonyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
102	1-(ethoxycarbonyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
103	3-oxo-n-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
104	2-acetoxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
105	cyanomethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
106	2-cyanoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
107	3-cyano-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
108	2-(methylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
109	2-(ethylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
110	2-(isopropylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
111	1-methyl-2-(methylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
112	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
113	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
114	3-(methylthio)-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
115	3-(ethylthio)-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
116	2-fluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
117	2,2-difluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
118	2,2,2-trifluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
119	1,3-difluoro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
120	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
121	1-methyl-2,2,2-trifluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
122	1,1,1,3,3,3-hexafluoro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
123	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
124	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
125	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
126	4,4,4-tifluoro-n-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl

TABLE 1-continued

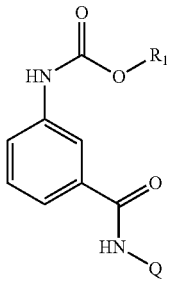
(1-A)



Compound No.	R_1	Q
127	2,2,3,3-tetrafluorocyclobutyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
128	chloromethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
129	trichloromethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
130	2-chloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
131	2,2-dichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
132	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
133	1,2,2,2-tetrachloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
134	1,3-dichloro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
135	1,1-dimethyl-2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
136	3-chloro-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
137	2-bromoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
138	2,2,2-tribromoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
139	3-bromo-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
140	2-iodoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
141	2-(acetylamino)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
142	2-(dimethylamino)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
143	2-(ethylamino)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
144	methylaminocarbonylethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
145	phenyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
146	4-methylphenyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
147	3-trifluoromethylphenyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
148	4-chlorophenyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
149	naphthyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
150	Pyridine-2-yl	2,6-dimethyl-4-heptafluoroisopropylphenyl
151	pyridine-3-yl	2,6-dimethyl-4-heptafluoroisopropylphenyl
152	pyridine-4-yl	2,6-dimethyl-4-heptafluoroisopropylphenyl
153	tetrahydrofuran-2-yl	2,6-dimethyl-4-heptafluoroisopropylphenyl
154	tetrahydrofuran-3-yl	2,6-dimethyl-4-heptafluoroisopropylphenyl
155	(furan-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
156	(furan-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
157	(tetrahydrofuran-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
158	(tetrahydrofuran-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
159	(thiophen-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
160	(thiophen-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
161	(pyridin-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
162	(pyridin-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
163	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
164	Me	2-methyl-6-isopropyl-4-heptafluoroisopropylphenyl
165	Et	2-methyl-6-isopropyl-4-heptafluoroisopropylphenyl
166	i-Pr	4-heptafluoroisopropylphenyl
167	i-Pr	3-methyl-4-heptafluoroisopropylphenyl
168	i-Pr	2-ethyl-4-heptafluoroisopropylphenyl
169	i-Pr	2-propyl-4-heptafluoroisopropylphenyl
170	i-Pr	3-methoxy-4-heptafluoroisopropylphenyl
171	i-Pr	3-chloro-4-heptafluoroisopropylphenyl
172	i-Pr	2,3-dimethyl-4-heptafluoroisopropylphenyl
173	i-Pr	2,5-dimethyl-4-heptafluoroisopropylphenyl
174	i-Pr	2,6-diethyl-4-heptafluoroisopropylphenyl
175	i-Pr	2-ethyl-6-methyl-4-heptafluoroisopropylphenyl
176	i-Pr	2-methyl-6-isopropyl-4-heptafluoroisopropylphenyl
177	i-Pr	2-methoxy-6-methyl-4-heptafluoroisopropylphenyl
178	i-Pr	2-methyl-6-phenyl4-heptafluoroisopropylphenyl
179	i-Pr	2-chloro-5-methyl-4-heptafluoroisopropylphenyl
180	i-Pr	2-chloro-6-ethyl-4-heptafluoroisopropylphenyl
181	i-Pr	2-chloro-6-n-propyl-4-heptafluoroisopropyl-phenyl
182	i-Pr	2-chloro-5-methoxy-4-heptafluoroisopropylphenyl
183	i-Pr	2,3-dimethyl-6-chloro-4-heptafluoroisopropyl-phenyl
184	i-Pr	2-chloro-3,6-dimethyl-4-heptafluoroisopropyl-phenyl
185	i-Pr	2-methyl-3-chloromethyl-6-chloro-4-heptafluoro-isopropylphenyl

TABLE 1-continued

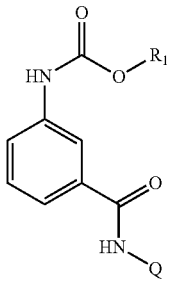
(1-A)



Compound No.	R_1	Q
186	i-Pr	2-methyl-3-iodo-6-chloro-4-heptafluoro-isopropylphenyl
187	2,2,2-trichloroethyl	4-heptafluoroisopropylphenyl
188	2,2,2-trichloroethyl	3-methyl-4-heptafluoroisopropylphenyl
189	2,2,2-trichloroethyl	2-ethyl-4-heptafluoroisopropylphenyl
190	2,2,2-trichloroethyl	2-propyl-4-heptafluoroisopropylphenyl
191	2,2,2-trichloroethyl	3-methoxy-4-heptafluoroisopropylphenyl
192	2,2,2-trichloroethyl	2-chloro-4-heptafluoroisopropylphenyl
193	2,2,2-trichloroethyl	3-chloro-4-heptafluoroisopropylphenyl
194	2,2,2-trichloroethyl	2,3-dimethyl-4-heptafluoroisopropylphenyl
195	2,2,2-trichloroethyl	2,5-dimethyl-4-heptafluoroisopropylphenyl
196	2,2,2-trichloroethyl	2,6-diethyl-4-heptafluoroisopropylphenyl
197	2,2,2-trichloroethyl	2-ethyl-6-methyl-4-heptafluoroisopropylphenyl
198	2,2,2-trichloroethyl	2-methyl-6-isopropyl-4-heptafluoroisopropylphenyl
199	2,2,2-trichloroethyl	2-methoxy-6-methyl-4-heptafluoroisopropylphenyl
200	2,2,2-trichloroethyl	2-methyl-6-phenyl-4-heptafluoroisopropylphenyl
201	2,2,2-trichloroethyl	2-hydroxy-6-methyl-4-heptafluoroisopropylphenyl
202	2,2,2-trichloroethyl	2-chloro-5-methyl-4-heptafluoroisopropylphenyl
203	2,2,2-trichloroethyl	2-methyl-3-amino-4-heptafluoroisopropylphenyl
204	2,2,2-trichloroethyl	2-methyl-3-t-butoxycarbonylamino-4-heptafluoroisopropylphenyl
205	2,2,2-trichloroethyl	2-chloro-6-ethyl-4-heptafluoroisopropylphenyl
206	2,2,2-trichloroethyl	2-bromo-6-ethyl-4-heptafluoroisopropylphenyl
207	2,2,2-trichloroethyl	2-ethyl-6-iodo-4-heptafluoroisopropylphenyl
208	2,2,2-trichloroethyl	2-chloro-6-n-propyl-4-heptafluoroisopropylphenyl
209	2,2,2-trichloroethyl	2-bromo-6-n-propyl-4-heptafluoroisopropylphenyl
210	2,2,2-trichloroethyl	2-bromo-6-n-butyl-4-heptafluoroisopropylphenyl
211	2,2,2-trichloroethyl	2-chloro-5-methoxy-4-heptafluoro-isopropylphenyl
212	2,2,2-trichloroethyl	2-bromo-6-methylthio-4-heptafluoro-isopropylphenyl
213	2,2,2-trichloroethyl	2,6-dichloro-4-heptafluoroisopropylphenyl
214	2,2,2-trichloroethyl	2,3-dimethyl-6-chloro-4-heptafluoro-isopropylphenyl
215	2,2,2-trichloroethyl	2-chloro-3,6-dimethyl-4-heptafluoro-isopropylphenyl
216	2,2,2-trichloroethyl	2-methyl-3-chloromethyl-6-chloro-4-heptafluoro-isopropylphenyl
217	2,2,2-trichloroethyl	2-methyl-3,6-dichloro-4-heptafluoro-isopropylphenyl
218	2,2,2-trichloroethyl	2-methyl-3-bromo-6-chloro-4-heptafluoro-isopropylphenyl
219	2,2,2-trichloroethyl	2-methyl-3-iodo-6-chloro-4-heptafluoro-isopropylphenyl
220	2,2,2-trichloroethyl	2-methyl-3-amino-6-chloro-4-heptafluoro-isopropylphenyl
221	3,3,3-trifluoro-n-propyl	2-bromo-6-n-butyl-4-heptafluoroisopropylphenyl
222	i-Pr	2-chloro-6-methyl-4-trifluoromethylphenyl
223	i-Pr	2,6-dichloro-4-trifluoromethylphenyl
224	i-Pr	2-bromo-4,6-bis(trifluoromethyl)phenyl
225	i-Pr	2,6-dimethyl-4-heptafluoro-n-propylphenyl
226	i-Pr	2,6-dimethyl-4-nonafluoro-n-butylphenyl
227	2,2,2-trichloroethyl	4-trifluoromethylphenyl
228	2,2,2-trichloroethyl	2-chloro-6-methyl-4-trifluoromethylphenyl
229	2,2,2-trichloroethyl	2-bromo-6-chloro-4-trifluoromethylphenyl
230	2,2,2-trichloroethyl	2,6-dichloro-4-trifluoromethylphenyl
231	2,2,2-trichloroethyl	2-chloro4,6-bistrifluoromethylphenyl
232	2,2,2-trichloroethyl	2-bromo-4,6-bistrifluoromethylphenyl
233	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoro-n-propylphenyl
234	2,2,2-trichloroethyl	2,6-dimethyl-4-nonafluoro-n-butylphenyl
235	2,2,2-trichloroethyl	2,3,5,6-tetrafluoro-4-trifluoromethylphenyl
236	2,2,2-trichloroethyl	2,6-dibromo-4-pentafluoroethylphenyl
237	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-pentafluoroethylphenyl
238	3,3,3-trifluoro-n-propyl	2-bromo6-chloro-4-trifluoromethylphenyl

TABLE 1-continued

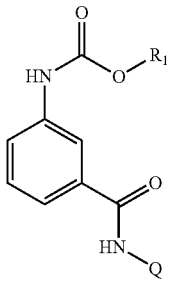
(1-A)



Compound No.	R_1	Q
239	Et	2,4-bis(trifluoromethyl)phenyl
240	i-Pr	2,4-bis(trifluoromethyl)phenyl
241	vinyl	2,4-bis(trifluoromethyl)phenyl
242	cyclopentyl	2,4-bis(trifluoromethyl)phenyl
243	2-chloroethyl	2,4-bis(trifluoromethyl)phenyl
244	2-cyanoethyl	2,4-bis(trifluoromethyl)phenyl
245	2,2-difluoroethyl	2,4-bis(trifluoromethyl)phenyl
246	2,2-dichloroethyl	2,4-bis(trifluoromethyl)phenyl
247	2,2,2-trichloroethyl	2,4-bis(trifluoromethyl)phenyl
248	2,2,2-tribromoethyl	2,4-bis(trifluoromethyl)phenyl
249	3,3,3-trifluoro-n-propyl	2,4-bis(trifluoromethyl)phenyl
250	2,2,3,3,3-pentafluoro-n-propyl	2,4-bis(trifluoromethyl)phenyl
251	4-cyanobenzyl	2,4-bis(trifluoromethyl)phenyl
252	(6-chloropyridin-3-yl)methyl	2,4-bis(trifluoromethyl)phenyl
253	i-Pr	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
254	2,2-difluoroethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
255	1,3-difluoro-2-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
256	2,2,2-trifluoroethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
257	2,2,2-trichloroethyl	2,6-dimethyl-4-(noanfluoro-2-butyl)phenyl
258	1-methyl-2,2,2-trifluoroethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
259	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
260	Et	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
261	vinyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
262	propargyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
263	cyclobutyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
264	cyclopentyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
265	benzyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
266	3-cyanobenzyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
267	4-cyanobenzyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
268	3-chlorobenzyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
269	2-methoxyethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
270	2-cyanoethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
271	2-(methylthio)ethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
272	2-(ethylthio)ethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
273	1-methyl-2-(methylthio)ethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
274	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
275	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
276	2-fluoroethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
277	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
278	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
279	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
280	4,4,4-trifluoro-n-butyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
281	2,2,3,3-tetrafluorocyclobutyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
282	2-chloroethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
283	2,2-dichloroethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
284	1,3-dichloro-2-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
285	3-chloro-n-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
286	2-bromoethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
287	2,2,2-tribromoethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
288	3-bromo-n-propyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
289	2-iodoethyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
290	tetrahydrofuran-3-yl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
291	(furan-2-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
292	(furan-3-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
293	(tetrahydrofuran-2-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
294	(tetrahydrofuran-3-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
295	(thiophen-2-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
296	(thiophen-3-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
297	(pyridin-2-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
298	(pyridin-3-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
299	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
300	2,2,2-trichloroethyl	2,6-dichloro-4-(trifluoromethylthio)phenyl
301	2,2,2-trichloroethyl	2,6-dichloro-4-(trifluoromethylsulfonyl)phenyl

TABLE 1-continued

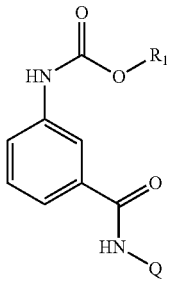
(1-A)



Compound No.	R_1	Q
302	Et	2,6-dimethyl-4-pentafluoroethylphenyl
303	i-Pr	2,6-dimethyl-4-pentafluoroethylphenyl
304	propargyl	2,6-dimethyl-4-pentafluoroethylphenyl
305	cyclobutyl	2,6-dimethyl-4-pentafluoroethylphenyl
306	cyclopentyl	2,6-dimethyl-4-pentafluoroethylphenyl
307	benzyl	2,6-dimethyl-4-pentafluoroethylphenyl
308	3-cyanobenzyl	2,6-dimethyl-4-pentafluoroethylphenyl
309	4-cyanobenzyl	2,6-dimethyl-4-pentafluoroethylphenyl
310	3-chlorobenzyl	2,6-dimethyl-4-pentafluoroethylphenyl
311	2-methoxyethyl	2,6-dimethyl-4-pentafluoroethylphenyl
312	2-cyanoethyl	2,6-dimethyl-4-pentafluoroethylphenyl
313	2-(methylthio)ethyl	2,6-dimethyl-4-pentafluoroethylphenyl
314	2-(ethylthio)ethyl	2,6-dimethyl-4-pentafluoroethylphenyl
315	1-methyl2-(methylthio)ethyl	2,6-dimethyl-4-pentafluoroethylphenyl
316	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-pentafluoroethylphenyl
317	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-pentafluoroethylphenyl
318	2-fluoroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
319	2,2-difluoroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
320	2,2,2-trifluoroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
321	1,3-difluoro-2-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
322	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
323	1-methyl-2,2,2-trifluoroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
324	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
325	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
326	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-pentafluoroethylphenyl
327	4,4,4-trifluoro-n-butyl	2,6-dimethyl-4-pentafluoroethylphenyl
328	2,2,3,3-tetrafluorocyclobutyl	2,6-dimethyl-4-pentafluoroethylphenyl
329	2-chloroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
330	2,2-dichloroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
331	2,2,2-trichloroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
332	1,3-dichloro-2-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
333	3-chloro-n-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
334	2-bromoethyl	2,6-dimethyl-4-pentafluoroethylphenyl
335	2,2,2-tribromoethyl	2,6-dimethyl-4-pentafluoroethylphenyl
336	3-bromo-n-propyl	2,6-dimethyl-4-pentafluoroethylphenyl
337	2-iodoethyl	2,6-dimethyl-4-pentafluoroethylphenyl
338	tetrahydrofuran-3-yl	2,6-dimethyl-4-pentafluoroethylphenyl
339	(furan-2-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
340	(furan-3-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
341	(tetrahydrofuran-2-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
342	(tetrahydrofuran-3-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
343	(thiophen-2-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
344	(thiophen-3-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
345	(pyridin-2-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
346	(pyridin-3-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
347	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-pentafluoroethylphenyl
348	Me	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
349	Et	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
350	i-Pr	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
351	propargyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
352	cyclobutyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
353	cyclopentyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
354	3-cyanobenzyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
355	4-cyanobenzyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl

TABLE 1-continued

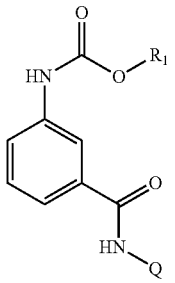
(1-A)



Compound No.	R_1	Q
356	3-chlorobenzyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
357	2-methoxyethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
358	2-cyanoethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
359	2-(methylthio)ethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
360	2-(ethylthio)ethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
361	1-methyl-2-(methylthio)ethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
362	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
363	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
364	2-fluoroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
365	2,2-difluoroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
366	2,2,2-trifluoroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
367	1,3-difluoro-2-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
368	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
369	1-methyl-2,2,2-trifluoroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
370	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
371	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
372	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
373	4,4,4-trifluoro-n-butyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
374	2,2,3,3-tetrafluorocyclobutyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
375	2-chloroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
376	2,2-dichloroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
377	2,2,2-trichloroethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
378	1,3-dichloro-2-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
379	3-chloro-n-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
380	2-bromoethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
381	2,2,2-tribromoethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
382	3-bromo-n-propyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
383	2-iodoethyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
384	tetrahydrofuran-3-yl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
385	(furan-2-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
386	(furan-3-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl

TABLE 1-continued

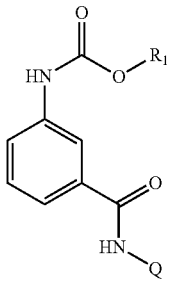
(1-A)



Compound No.	R_1	Q
387	(tetrahydrofuran-2-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
388	(tetrahydrofuran-3-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
389	(thiophen-2-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
390	(thiophen-3-yl)methyl	2,6-dimethyl-4-(2-brono-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
391	(pyridin-2-yl)methyl	2,6-dimethyl-4-(2-bromn-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
392	(pyridin-3-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
393	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-(2-bromo-1,1,2,3,3,3-hexafluoro-isopropyl)phenyl
394	Et	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
395	i-Pr	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
396	vinyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
397	propargyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
398	cyclobutyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
399	cyclopentyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
400	benzyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
401	3-cyanobenzyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
402	4-cyanobenzyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
403	3-chlorobenzyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
404	2-methoxyethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
405	2-cyanoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
406	2-(methylthio)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
407	2-(ethylthio)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
408	1-methyl-2-(methylthio)ethyl	2,6-dlchloro-4-(heptafluoro-n-propylthio)phenyl
409	2-(ethylsulfinyl)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
410	2-(ethylsulfonyl)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
411	2-fluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
412	2,2-difluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
413	2,2,2-trifluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
414	1,3-difluoro-2-propyl	2,6-dichloro4-(heptafluoro-n-propylthio)phenyl
415	1-chloro-3-fluoro-2-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
416	1-methyl-2,2,2-trifluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
417	3,3,3-trifluoro-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
418	2,2,3,3,3-pentafluoro-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
419	3,3,4,4,4-pentafluoro-2-butyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
420	4,4,4-trifluoro-n-butyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
421	2,2,3,3-tetrafluorocyclobutyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
422	2-chloroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
423	2,2-dichloroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
424	2,2,2-trichloroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
425	1,3-dichloro-2-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
426	3-chloro-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
427	2-bromoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
428	2,2,2-tribromoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
429	3-bromo-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
430	2-iodoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
431	tetrahydrofuran-3-yl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
432	(furan-2-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
433	(furan-3-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
434	(tetrahydrofuran-2-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
435	(tetrahydrofuran-3-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
436	(thiophen-2-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
437	(thiophen-3-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
438	(pyridin-2-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
439	(pyridin-3-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
440	(6-chloropyridin-3-yl)methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
441	Et	2,6-dibromo-4-(trifluoromethylthio)phenyl
442	i-Pr	2,6-dibromo-4-(trifluoromethylthio)phenyl

TABLE 1-continued

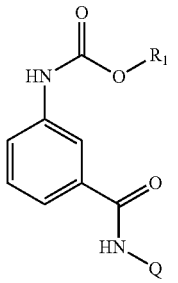
(1-A)



Compound No.	R_1	Q
443	vinyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
444	propargyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
445	cyclobutyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
446	cyclopentyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
447	benzyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
448	3-cyanobenzyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
449	4-cyanobenzyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
450	3-chlorobenzyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
451	2-methoxyethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
452	2-cyanoethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
453	2-(methylthio)ethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
454	2-(ethylthio)ethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
455	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
456	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
457	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
458	2-fluoroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
459	2,2-difluoroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
460	2,2,2-trifluoroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
461	1,3-difluoro-2-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
462	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
463	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
464	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
465	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
466	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
467	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
468	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
469	2-chloroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
470	2,2-dichloroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
471	2,2,2-trichloroethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
472	1,3-dichloro-2-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
473	3-chloro-n-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
474	2-bromoethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
475	2,2,2-tribromoethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
476	3-bromo-n-propyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
477	2-iodoethyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
478	tetrahydrofuran-3-yl	2,6-dibromo-4-(trifluoromethylthio)phenyl
479	(furan-2-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
480	(furan-3-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
481	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
482	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
483	(thiophen-2-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
484	(thiophen-3-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
485	(pyridin-2-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
486	(pyridin-3-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
487	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(trifluoromethylthio)phenyl
488	Et	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
489	i-Pr	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
490	vinyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
491	propargyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
492	cyclobutyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
493	cyclopentyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
494	benzyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
495	3-cyanobenzyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
496	4-cyanobenzyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
497	3-chlorobenzyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
498	2-methoxyethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
499	2-cyanoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
500	2-(methylthio)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
501	2-(ethylthio)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
502	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
503	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
504	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
505	2-fluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl

TABLE 1-continued

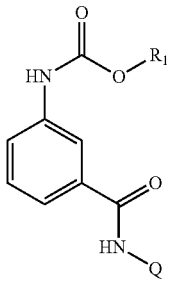
(1-A)



Compound No.	R_1	Q
506	2,2-difluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
507	2,2,2-trifluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
508	1,3-difluoro-2-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
509	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
510	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
511	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
512	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
513	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
514	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
515	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
516	2-chloroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
517	2,2-dichloroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
518	2,2,2-trichloroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
519	1,3-dichloro-2-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
520	3-chloro-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
521	2-bromoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
522	2,2,2-tribromoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
523	3-bromo-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
524	2-iodoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
525	tetrahydrofuran-3-yl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
526	(furan-2-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
527	(furan-3-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
528	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
529	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
530	(thiophen-2-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
531	(thiophen-3-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
532	(pyridin-2-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
533	(pyridin-3-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
534	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
535	Et	2,6-dibromo-4-(pentafluoroethylthio)phenyl
536	i-Pr	2,6-dibromo-4-(pentafluoroethylthio)phenyl
537	vinyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
538	propargyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
539	cyclobutyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
540	cyclopentyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
541	benzyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
542	3-cyanobenzyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
543	4-cyanobenzyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
544	3-chlorobenzyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
545	2-methoxyethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
546	2-cyanoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
547	2-(methylthio)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
548	2-(ethylthio)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
549	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
550	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
551	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
552	2-fluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
553	2,2-difluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
554	2,2,2-trifluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
555	1,3-difluoro-2-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
556	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
557	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
558	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
559	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
560	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
561	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
562	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
563	2-chloroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
564	2,2-dichloroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
565	2,2,2-trichloroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
566	1,3-dichloro-2-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
567	3-chloro-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
568	2-bromoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl

TABLE 1-continued

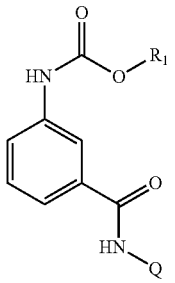
(1-A)



Compound No.	R_1	Q
569	2,2,2-tribromoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
570	3-bromo-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
571	2-iodoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
572	tetrahydrofuran-3-yl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
573	(furan-2-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenvl
574	(furan-3-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
575	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
576	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
577	(thiophen-2-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
578	(thiophen-3-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
579	(pyridin-2-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
580	(pyridin-3-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
581	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
582	Et	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
583	i-Pr	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
584	vinyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
585	propargyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
586	cyclobutyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
587	cyclopentyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
588	benzyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
589	3-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
590	4-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
591	3-chlorobenzyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
592	2-methoxyethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
593	2-cyanoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
594	2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
595	2-(ethylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
596	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
597	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
598	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
599	2-fluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
600	2,2-difluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
601	2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
602	1,3-difluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
603	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
604	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
605	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
606	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
607	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
608	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
609	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
610	2-chloroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
611	2,2-dichloroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
612	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
613	1,3-dichloro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
614	3-chloro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
615	2-bromoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
616	2,2,2-tribromoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
617	3-bromo-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
618	2-iodoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
619	tetrahydrofuran-3-yl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
620	(furan-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
621	(furan-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
622	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
623	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
624	(thiophen-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
625	(thiophen-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
626	(pyridin-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
627	(pyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
628	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
629	Et	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
630	i-Pr	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
631	vinyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl

TABLE 1-continued

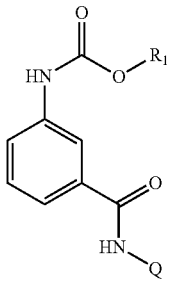
(1-A)



Compound No.	R_1	Q
632	propargyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
633	cyclobutyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
634	cyclopentyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
635	benzyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
636	3-cyanobenzyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
637	4-cyanobenzyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
638	3-chlorobenzyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
639	2-methoxyethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
640	2-cyanoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
641	2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
642	2-(ethylthio)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
643	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
644	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
645	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
646	2-fluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
647	2,2-difluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
648	2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
649	1,3-difluoro-2-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
650	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
651	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
652	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
653	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
654	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
655	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
656	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
657	2-chloroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
658	2,2-dichloroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
659	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
660	1,3-dichloro-2-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
661	3-chloro-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
662	2-bromoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
663	2,2,2-tribromoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
664	3-bromo-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
665	2-iodoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
666	tetrahydrofuran-3-yl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
667	(furan-2-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
668	(furan-3-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
669	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
670	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
671	(thiophen-2-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
672	(thiophen-3-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
673	(pyridin-2-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
674	(pyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
675	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
676	Et	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
677	i-Pr	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
678	vinyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
679	propargyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
680	cyclobutyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
681	cyclopentyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
662	benzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
683	3-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
684	4-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl

TABLE 1-continued

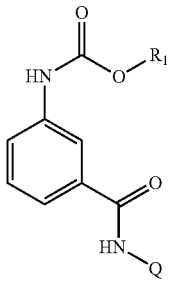
(1-A)



Compound No.	R_1	Q
685	3-chlorobenzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
686	2-methoxyethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
687	2-cyanoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
688	2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
689	2-(ethylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
690	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
691	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
692	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
693	2-fluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
694	2,2-difluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
695	2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
696	1,3-difluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
697	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
698	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
699	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
700	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
701	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
702	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
703	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
704	2-chloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
705	2,2-dichloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
706	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
707	1,3-dichloro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
708	3-chloro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
709	2-bromoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
710	2,2,2-tribromoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
711	3-bromo-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
712	2-iodoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
713	tetrahydrofuran-3-yl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
714	(furan-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
715	(furan-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl

TABLE 1-continued

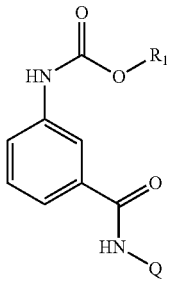
(1-A)



Compound No.	R_1	Q
716	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
717	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
718	(thiophen-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
719	(thiophen-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
720	(pyridin-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
721	(pyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
722	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
723	Et	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
724	i-Pr	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
725	vinyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
726	propargyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
727	cyclobutyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
728	cyclopentyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
729	benzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
730	3-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
731	4-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
732	3-chlorobenzyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
733	2-methoxyethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
734	2-cyanoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
735	2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
736	2-(ethylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
737	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
738	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
739	2-(ethylsulfonyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
740	2-fluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
741	2,2-difluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
742	2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
743	1,3-difluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
744	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
745	1-methyl-2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
746	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl

TABLE 1-continued

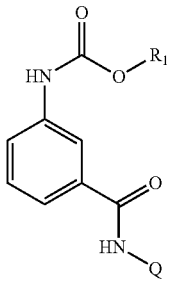
(1-A)



Compound No.	R_1	Q
747	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
748	3,3,4,4,4-pentafluoro-2-butyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
749	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
750	2,2,3,3-tetrafluorocyclobutyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
751	2-chloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
752	2,2-dichloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
753	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
754	1,3-dichloro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
755	3-chloro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
756	2-bromoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
757	2,2,2-tribromoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
758	3-bromo-n-propyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
759	2-iodoethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
760	tetrahydrofuran-3-yl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
761	(furan-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
762	(furan-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
763	(tetrahydrofuran-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
764	(tetrahydrofuran-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
765	(thiophen-2-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
766	(thiophen-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
767	(pyridin-2-yl)methyl	2,6-dibromo-4-(heptatluoro-n-propyl-sulfonyl)phenyl
768	(pyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
769	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfonyl)phenyl
770	2,2,2-trichloroethyl	2-methyl-4-(heptafluoro-n-propylthio)phenyl
771	Et	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
772	i-Pr	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
773	propargyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
774	cyclobutyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
775	cyclopentyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
776	benzyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
777	3-cyanobenzyl	2,6-dimethyl-4-(heptafluoro-n-propylthto)phenyl
778	4-cyanobenzyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
779	3-chlorobenzyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
780	2-methoxyethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
781	2-cyanoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
782	2-(methylthio)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
783	2-(ethylthio)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
784	1-methyl-2-(methylthio)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
785	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
786	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl

TABLE 1-continued

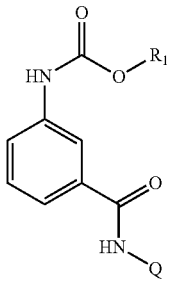
(1-A)



Compound No.	R_1	Q
787	2-fluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
788	2,2-difluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
789	2,2,2-trifluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
790	1,3-difluoro-2-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
791	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
792	1-methyl-2,2,2-trifluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
793	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
794	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
795	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
796	4,4,4-trifluoro-n-butyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
797	2,2,3,3-tetrafluorocyclobutyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
798	2-chloroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
799	2,2-dichloroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
800	2,2,2-trichloroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
801	1,3-dichloro-2-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
802	3-chloro-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
803	2-bromoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
804	2,2,2-tribromoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
805	3-bromo-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
806	2-iodoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
807	tetrahydrofuran-3-yl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
808	(furan-2-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
809	(furan-3-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
810	(tetrahydrofuran-2-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
811	(tetrahydrofuran-3-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
812	(thiophen-2-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
813	(thiophen-3-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
814	(pyridin-2-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
815	(pyridin-3-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
816	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
817	3,3,3-trifluoro-n-propyl	2-(n-butyl)-6-chloro-4-heptafluoroisopropylphenyl
818	3,3,3-trifluoro-n-propyl	2-(n-butyl)-4-heptafluoroisopropyl-6-iodophenyl
819	3,3,3-trifluoro-n-propyl	2-bromo-6-(2-butyl)-4-heptafluoroisopropylphenyl
820	i-Pr	2-methyl-4-trifluoromethoxyphenyl
821	i-Pr	2-trifluoromethyl-4-isopropylphenyl
822	i-Pr	3,5-bistrifluoromethylphenyl
823	i-Pr	2,3,4-trifluorophenyl
824	i-Pr	2-heptafluoroisopropyl-3,5-dimethylphenyl
825	i-Pr	2,4-dichloro-6-methylphenyl
826	i-Pr	2-chloro-4,6-dimethylphenyl
827	i-Pr	2,6-dimethyl-4-chlorophenyl
828	i-Pr	2,6-dimethyl-4-bromophenyl
829	i-Pr	2,6-dimethyl-4-iodophenyl
830	i-Pr	2,6-dimethyl-4-(phenyl)phenyl
831	i-Pr	2,6-dimethyl-4-(2-methylphenyl)phenyl
832	i-Pr	2,6-dimethyl-4-(3-methylphenyl)phenyl
833	i-Pr	2,6-dimethyl-4-(4-methylphenyl)phenyl
834	i-Pr	2,6-dimethyl-4-(2-methoxyphenyl)phenyl
835	i-Pr	2,6-dimethyl-4-(3-methoxyphenyl)phenyl
836	i-Pr	2,6-dimethyl-4-(4-methoxyphenyl)phenyl
837	i-Pr	2,6-dimethyl-4-(4-ethoxyphenyl)phenyl
838	i-Pr	2,6-dimethyl-4-(4-methylthiophenyl)phenyl
839	i-Pr	2,6-dimethyl-4-(2-fluorophenyl)phenyl
840	i-Pr	2,6-dimethyl-4-(3-fluorophenyl)phenyl
841	i-Pr	2,6-dimethyl-4-(4-fluorophenyl)phenyl
842	i-Pr	2-bromo-4-isopropyl-6-methylphenyl
843	i-Pr	2-chloro-4-cyano-6-methylphenyl
844	i-Pr	2-chloro-4-trifluoromethoxy-6-methylphenyl
845	i-Pr	2-chloro-4-isopropyl-6-trifluoromethylphenyl
846	i-Pr	pentafluorophenyl
847	2,2,2-trichloroethyl	4-cyclohexylphenyl
848	2,2,2-trichloroethyl	2-trifluoromethylphenyl
849	2,2,2-trichloroethyl	4-(trifluoromethylthio)phenyl

TABLE 1-continued

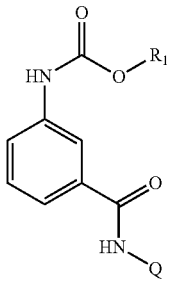
(1-A)



Compound No.	R_1	Q
850	2,2,2-trichloroethyl	4-(trifluoromethylsulfonyl)phenyl
851	2,2,2-trichloroethyl	4-(heptafluoro-n-propylthio)phenyl
852	2,2,2-trichloroethyl	4-(heptafluoro-n-propylsulfinyl)phenyl
853	2,2,2-trichloroethyl	4-(heptafluoroisopropylthio)phenyl
854	2,2,2-trichloroethyl	2-(n-butyl)-6-chloro-4-heptafluoroisopropylphenyl
855	2,2,2-trichloroethyl	2-(n-butyl)-4-heptafluoroisopropyl-6-iodophenyl
856	2,2,2-trichloroethyl	2-bromo-6-(2-butyl)-4-heptafluoroisopropylphenyl
857	2,2,2-trichloroethyl	2-(2-butyl)-4-heptafluoroisopropylphenyl
858	2,2,2-trichloroethyl	2-methyl-4-trifluoromethoxyphenyl
859	2,2,2-trichloroethyl	2-methyl-4-(2,2,2-trifluoroethoxy)phenyl
860	2,2,2-trichloroethyl	2-methyl-4-(trifluoromethylsulfonyloxy)phenyl
861	2,2,2-trichloroethyl	2-methyl-4-chlorophenyl
862	2,2,2-trichloroethyl	2-trifluoromethyl-4-isopropylphenyl
863	2,2,2-trichloroethyl	2,5-bistrifluoromethylphenyl
864	2,2,2-trichloroethyl	3,5-bistrifluoromethylphenyl
865	2,2,2-trichloroethyl	2-trifluoromethyl-4-chlorophenyl
866	2,2,2-trichloroethyl	2-chloro-6-trifluoromethylphenyl
867	2,2,2-trichloroethyl	2-trifluoromethyl-4-iodophenyl
868	2,2,2-trichloroethyl	2-trifluoromethoxy-4-bromophenyl
869	2,2,2-trichloroethyl	2,3,4-trifluorophenyl
870	2,2,2-trichloroethyl	2-heptafluoroisopropyl-3,5-dimethylphenyl
871	2,2,2-trichloroethyl	2,5-dimethyl-4-trifluoromethane-sulfonyloxyphenyl
872	2,2,2-trichloroethyl	2,6-dimethyl-4-(bis(trifluoromethyl)-hydroxymethyl)phenyl
873	2,2,2-trichloroethyl	2,6-dimethyl-4-(bis(chlorodifluoromethyl)-hydroxymethyl)phenyl
874	2,2,2-trichloroethyl	2,6-dimethyl-4-cyanothiophenyl
875	2,2,2-trichloroethyl	2,6-dimethyl-4-chlorophenyl
876	2,2,2-trichloroethyl	2-chloro-4,6-dimethylphenyl
877	2,2,2-trichloroethyl	2,6-dimethyl-4-bromophenyl
878	2,2,2-trichloroethyl	2,6-dimethyl-4-iodophenyl
879	2,2,2-trichloroethyl	2,6-dimethyl-4-(phenyl)phenyl
880	2,2,2-trichloroethyl	2,6-dimethyl-4-(2-methylphenyl)phenyl
881	2,2,2-trichloroethyl	2,6-dimethyl-4-(3-methylphenyl)phenyl
882	2,2,2-trichloroethyl	2,6-dimethyl-4-(4-methylphenyl)phenyl
883	2,2,2-trichloroethyl	2,6-dimethyl-4-(2-methoxyphenyl)phenyl
884	2,2,2-trichloroethyl	2,6-dimethyl-4-(3-methoxyphenyl)phenyl
885	2,2,2-trichloroethyl	2,6-dimethyl-4-(4-methoxyphenyl)phenyl
886	2,2,2-trichloroethyl	2,6-dimethyl-4-(4-ethoxyphenyl)phenyl
887	2,2,2-trichloroethyl	2,6-dimethyl-4-(4-methylthiophenyl)phenyl
888	2,2,2-trichloroethyl	2,6-dimethyl-4-(2-fluorophenyl)phenyl
889	2,2,2-trichloroethyl	2,6-dimethyl-4-(3-fluorophenyl)phenyl
890	2,2,2-trichloroethyl	2,6-dimethyl-4-(4-fluorophenyl)phenyl
891	2,2,2-trichloroethyl	2,6-dimethyl-4-(3,4-difluorophenyl)phenyl
892	2,2,2-trichloroethyl	2,6-dimethyl-4-(3-methyl-4-fluorophenyl)phenyl
893	2,2,2-trichloroethyl	2,6-dimethyl-4-(furan-3-yl)phenyl
894	2,2,2-trichloroethyl	2,6-dimethyl-4-(thiophene-2-yl)phenyl
895	2,2,2-trichloroethyl	2,6-dimethyl-4-(thiophene-3-yl)phenyl
896	2,2,2-trichloroethyl	2,4-dichloro-6-methylphenyl
897	2,2,2-trichloroethyl	2,4-dichloro-6-trifluoromethylphenyl
898	2,2,2-trichloroethyl	2,6-dichloro-4-(heptafluoroisopropylthio)phenyl
899	2,2,2-trichloroethyl	2,6-dichloro-4-(heptafluoroisopropyl-sulfonyl)phenyl
900	2,2,2-trichloroethyl	2,6-dichloro-4-pentafluorosulfanylphenyl
901	2,2,2-trichloroethyl	2,6-dibromo-4-cyclohexylphenyl
902	2,2,2-trichloroethyl	2,4-dibromo-6-trifluoromethylphenyl
903	2,2,2-trichloroethyl	2,6-dibromo-4-(nonafluoro-n-butylthio)phenyl
904	2,2,2-trichloroethyl	2-chloro-4-hydroxy-6-methylphenyl
905	2,2,2-trichloroethyl	2-chloro-4-trifluoromethoxy-6-methylphenyl
906	2,2,2-trichloroethyl	2-chloro-4-((2,2,2-trichloroethoxy)carbonyloxy)-6-methylphenyl

TABLE 1-continued

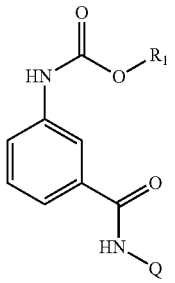
(1-A)



Compound No.	R_1	Q
907	2,2,2-trichloroethyl	2-chloro-4-cyano-6-methylphenyl
908	2,2,2-trichloroethyl	2-chloro-4-iodo-6-methylphenyl
909	2,2,2-trichloroethyl	2-bromo-4-isopropyl-6-methylphenyl
910	2,2,2-trichloroethyl	2-bromo-4-hydroxy-6-methylphenyl
911	2,2,2-trichloroethyl	2-chloro-4-isopropyl-6-trifluoromethylphenyl
912	2,2,2-trichloroethyl	2-bromo-4-((2,2,2-trichloroethoxy)carbonyloxy)-6-methylphenyl
913	2,2,2-trichloroethyl	2-chloro-4-bromo-6-trifluoromethylphenyl
914	2,2,2-trichloroethyl	2-bromo-4-isopropyl-6-trifluoromethylphenyl
915	2,2,2-trichloroethyl	2-bromo-4-chloro-6-trifluoromethylphenyl-
916	2,2,2-trichloroethyl	pentafluorophenyl
917	2-chloroethyl	2,6-dimethyl-4-iodophenyl
918	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(1,1,1,3,3,3-hexafluoro2-hydroxy-2-propyl)phenyl
919	3,3,3-trifluoro-n-propyl	2,6-dichloro-4-pentafluorosulfanylphenyl
920	i-Pr	2-methyl-4-heptafluoroisopropyl-1-naphthyl
921	i-Pr	4-heptafluoroisopropyl-5,6,7,8-tetrahydro-1-naphthyl
922	i-Pr	2-chloro-4-heptafluoroisopropyl-5,6,7,8-tetrahydro-1-naphthyl
923	i-Pr	1-methyl-3-trifluoromethylpyrazo1-5-yl
924	i-Pr	1-methyl-3-trifluoromethyl-4-chloropyrazol-5-yl
925	i-Pr	1-methyl-3-trifluoromethyl-4-bromopyrazol-5-yl
926	i-Pr	1-methyl-3-trifluoromethyl-4-methoxy-carbonylpyrazol-5-yl
927	i-Pr	2-chloro-4-methylpyridin-5-yl
928	i-Pr	2-bromo4-methyl-6-chloropyridin-3-yl
929	i-Pr	2-(1,1,1,3,3,3-hexafluoroisopropyloxy)-pyridin-5-yl
930	i-Pr	2-(1,1,1,3,3,3-hexafluoroisopropyloxy)-4-methylpyridin-5-yl
931	i-Pr	2-bromo-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
932	i-Pr	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
933	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropyl-1-naphthyl
934	2,2,2-trichloroethyl	4-heptafluoroisopropyl-5,6,7,8-tetrahydro-1-naphthyl
935	2,2,2-trichloroethyl	2-chloro-4-heptafluoroisopropyl-5,6,7,8-tetrahydro-1-naphthyl
936	2,2,2-trichloroethyl	1-methyl-3-trifluoromethylpyrazol-5-yl
937	2,2,2-trichloroethyl	1-methyl-3-trifluoromethyl-4-chloropyrazol-5-yl
938	2,2,2-trichloroethyl	1-methyl-3-trifluoromethyl-4-bromopyrazol-5-yl
939	2,2,2-trichloroethyl	1-methyl-3-trifluoromethyl-4-methoxy-carbonylpyrazol-5-yl
940	2,2,2-trichloroethyl	1-(3-chloropyridine-2-yl)-3-bromopyrazol-5-yl
941	2,2,2-trichloroethyl	1-(3-chloropyridin-2-yl)-3-bromo-4-chloropyrazol-5-yl
942	2,2,2-trichloroethyl	2-heptafluoroisopropyl-4-methylpyridin-5-yl
943	2,2,2-trichloroethyl	2-(1,1,1,3,3,3-hexafluoroisopropyloxy)pyridin-5-yl
944	2,2,2-trichloroethyl	2-(1,1,1,3,3,3-hexafluoroisopropyloxy)-4-methylpyridin-5-yl
945	2,2,2-trichloroethyl	2-chloro-4-methylpyridin-5-yl
946	2,2,2-trichloroethyl	3-chloro-5-trifluoromethylpyridin-2-yl
947	2,2,2-trichloroethyl	2-bromo-4-methyl-6-chloropyridin-3-yl
948	2,2,2-trichloroethyl	2-bromo-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
949	2,2,2-trichloroethyl	2,6-dichloro-4-(trifluoromethylsulfinyl)phenyl
950	2,2,2-trichloroethyl	2,6-dibromo-4-(trifluoromethylsulfinyl)phenyl
951	2,2,2-trichloroethyl	2,6-dichloro-4-(pentafluoroethylsulfinyl)phenyl
952	2,2,2-trichloroethyl	2,6-dibromo-4-(pentafluoroethylsulfinyl)phenyl
953	2,2,2-trichloroethyl	2,6-dichloro-4-(pentafluoroethylsulfonyl)phenyl
954	2,2,2-trichloroethyl	2,6-dibromo-4-(pentafluoroethylsulfonyl)phenyl

TABLE 1-continued

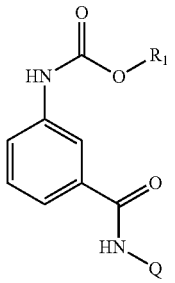
(1-A)



Compound No.	R_1	Q
955	2,2,2-trichloroethyl	2,6-dichloro-4-(heptafluoro-n-propyl-sulfinyl)phenyl
956	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl-sulfinyl)phenyl
957	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(nonafluoro-2-butyl)phenyl
958	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(nonafluoro-2-butyl)phenyl
959	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(nonafluoro-2-butyl)phenyl
960	2,2,2-trichloroethyl	2,6-dichloro-4-(nonafluoro-2-butyl)phenyl
961	2,2,2-trichloroethyl	2,6-dibromo-4-(nonafluoro-2-butyl)phenyl
962	2,2,2-trichloroethyl	2,6-dimethyl-4-pentafluoroethylphenyl
963	2,2,2-trichloroethyl	2,6-dichloro-4-pentafluoroethylphenyl
964	2,2,2-trichloroethyl	2,6-dimethyl-4-(pentafluoroethylthio)-phenyl
965	2,2,2-trichloroethyl	2,6-dimethyl-4-(pentafluoroethylsulfinyl)-phenyl
966	2,2,2-trichloroethyl	2,6-dimethyl-4-(pentafluoroethylsulfonyl)-phenyl
967	2,2,2-trichloroethyl	2,6-dichloro-4-(pentafluoroethylthio)-phenyl
968	i-Pr	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
969	cyclobutyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
970	cyclopentyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
971	4-cyanobenzyl	2-chloro4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
972	2-methoxyethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
973	2-cyanoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
974	2-(methylthio)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
975	2-(ethylthio)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
976	1-methyl-2-(methylthio)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
977	2-(ethylsulfinyl)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
978	2-(ethylsulfonyl)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
979	2-fluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
980	2,2-difluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
981	2,2,2-trifluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
982	1,3-difluoro-2-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
983	1-chloro-3-fluoro-2-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
984	1-methyl-2,2,2-trifluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
985	3,3,3-trifluoro-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
986	2,2,3,3,3-pentafluoro-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
987	3,3,4,4,4-pentafluoro-2-butyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
988	4,4,4-trifluoro-n-butyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
989	2,2,3,3-tetrafluorocyclobutyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl

TABLE 1-continued

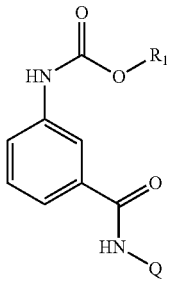
(1-A)



Compound No.	R_1	Q
990	2-chloroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
991	2,2-dichloroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
992	2,2,2-trichloroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
993	1,3-dichloro-2-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
994	3-chloro-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
995	2-bromoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
996	2,2,2-tribromoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
997	3-bromo-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
998	2-iodoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
999	tetrahydrofuran-3-yl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1000	(furan-2-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1001	(furan-3-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1002	(tetrahydrofuran-2-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1003	(tetrahydrofuran-3-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1004	(thiophen-2-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1005	(thiophen-3-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1006	(pyridin-2-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1007	(pyridin-3-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1008	(6-chloropyridin-3-yl)methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1009	Et	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1010	i-Pr	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1011	vinyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1012	propargyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1013	cyclobutyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1014	cyclopentyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1015	benzyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1016	3-cyanobenzyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1017	4-cyanobenzyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1018	3-chlorobenzyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1019	2-methoxyethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1020	2-cyanoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl

TABLE 1-continued

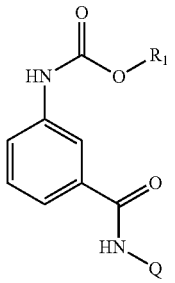
(1-A)



Compound No.	R_1	Q
1021	2-(methylthio)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1022	2-(ethylthio)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1023	1-methyl-2-(methylthio)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1024	2-(ethylsulfinyl)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1025	2-(ethylsulfonyl)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1026	2-fluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1027	2,2-difluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1028	2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1029	1,3-difluoro-2-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1030	1-chloro-3-fluoro-2-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1031	1-methyl-2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1032	3,3,3-trifluoro-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1033	2,2,3,3,3-pentafluoro-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1034	3,3,4,4,4-pentafluoro-2-butyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1035	4,4,4-trifluoro-n-butyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1036	2,2,3,3-tetrafluorocyclobutyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1037	2-chloroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1038	2,2-dichloroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1039	2,2,2-trichloroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1040	1,3-dichloro-2-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1041	3-chloro-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1042	2-bromoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1043	2,2,2,-tribromoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1044	3-bromo-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1045	2-iodoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1046	tetrahydrofuran-3-yl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1047	(furan-2-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1048	(furan-3-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1049	(tetrahydrofuran-2-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1050	(tetrahydrofuran-3-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1051	(thiophen-2-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl

TABLE 1-continued

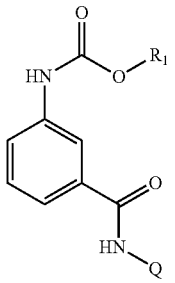
(1-A)



Compound No.	R_1	Q
1052	(thiophen-3-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1053	(pyridin-2-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1054	(pyridin-3-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1055	(6-chloropyridin-3-yl)methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1056	Et	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1057	i-Pr	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1058	vinyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1059	propargyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1060	cyclobutyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1061	cyclopentyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1062	benzyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1063	3-cyanobensyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1064	4-cyanobenzyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1065	3-chlorobenzyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1066	2-methoxyethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1067	2-cyanoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1068	2-(methylthio)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1070	1-methyl-2-(methylthio)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1071	2-(ethylsulfinyl)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1072	2-(ethylsulfonyl)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1073	2-fluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1074	2,2-difluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1075	2,2,2-trifluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1076	1,3-difluoro-2-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1077	1-chloro-3-fluoro-2-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1078	1-methyl-2,2,2-trifluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1079	3,3,3-trifluoro-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1080	2,2,3,3,3-pentafluoro-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1081	3,3,4,4,4-pentafluoro-2-butyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1082	4,4,4-trifluoro-n-butyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1083	2,2,3,3-tetrafluorocyclobutyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl

TABLE 1-continued

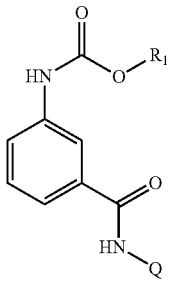
(1-A)



Compound No.	R_1	Q
1084	2-chloroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1085	2,2-dichloroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1086	2,2,2-trichloroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1087	1,3-dichloro-2-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1088	3-chloro-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1089	2-bromoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1090	2,2,2-tribromoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1091	3-bromo-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1092	2-iodoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1093	tetrahydrofuran-3-yl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1094	(furan-2-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1095	(furan-3-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1096	(tetrahydrofuran-2-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1097	(tetrahydrofuran-3-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1098	(thiophen-2-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1099	(thiophen-3-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1100	(pyridin-2-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1101	(pyridin-3-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1102	(6-chloropyridin-3-yl)methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1103	Et	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1104	i-Pr	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1105	vinyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1106	propargyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1107	cyclobutyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1108	cyclopentyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1109	benzyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1110	3-cyanobenzyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1111	4-cyanobenzyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1112	3-chlorobenzyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1113	2-methoxyethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1114	2-cyanoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl

TABLE 1-continued

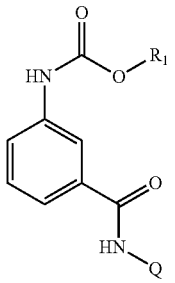
(1-A)



Compound No.	R_1	Q
1115	2-(methylthio)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1116	2-(ethylthio)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1117	1-methyl-2-(methylthio)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1118	2-(ethylsulfinyl)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1119	2-(ethylsulfonyl)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1120	2-fluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1121	2,2-difluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1122	2,2,2-trifluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1123	1,3-difluoro-2-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1124	1-chloro-3-fluoro-2-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1125	1-methyl-2,2,2-trifluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1126	3,3,3-trifluoro-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1127	2,2,3,3,3-pentafluoro-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1128	3,3,4,4,4-pentafluoro-2-butyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1129	4,4,4-trifluoro-n-butyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1130	2,2,3,3-tetrafluorocyclobutyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1131	2-chloroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1132	2,2-dichloroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1133	2,2,2-trichloroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1134	1,3-dichloro-2-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1135	3-chloron-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1136	2-bromoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1137	2,2,2-tribromoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1138	3-bromo-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1139	2-iodoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1140	tetrahydrofuran-3-yl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1141	(furan-2-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1142	(furan-3-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1143	(tetrahydrofuran-2-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1144	(tetrahydrofuran-3-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1145	(thiophen-2-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl

TABLE 1-continued

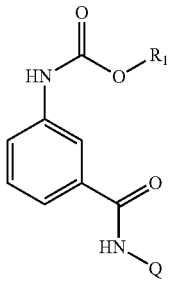
(1-A)



Compound No.	R_1	Q
1146	(thiophen-3-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1147	(pyridin-2-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1148	(pyridin-3-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1149	(6-chloropyridin-3-yl)methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro-isopropyloxy)pyridin-3-yl
1150	Et	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1151	i-Pr	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1152	vinyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1153	propargyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1154	cyclobutyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1155	cyclopentyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1156	benzyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1157	3-cyanobenzyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1158	4-cyanobenzyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1159	3-chlorobenzyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1160	2-methoxyethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1161	2-cyanoethyl	2-bromo-4-methyl6-(heptafluoro-isopropyl)pyridin-3-yl
1162	2-(methylthio)ethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1163	2-(ethylthio)ethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1164	1-methyl-2-(methylthio)ethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1165	2-(ethylsulfinyl)ethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1166	2-(ethylsulfonyl)ethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1167	2-fluoroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1168	2,2-difluoroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1169	2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1170	1,3-difluoro-2-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1171	1-chloro-3-fluoro-2-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1172	1-methyl-2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1173	3,3,3-trifluoro-n-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1174	2,2,3,3,3-pentafluoro-n-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1175	3,3,4,4,4-pentafluoro-2-butyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1176	4,4,4-trifluoro-n-butyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl

TABLE 1-continued

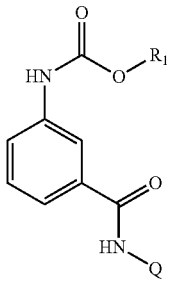
(1-A)



Compound No.	R_1	Q
1177	2,2,3,3-tetrafluorocyclobutyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1178	2-chloroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1179	2,2-dichloroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1180	2,2,2-trichloroethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1181	1,3-dichloro-2-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1182	3-chloro-n-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1183	2-bromoethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1184	2,2,2-tribromoethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1185	3-bromo-n-propyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1186	2-iodoethyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1187	tetrahydrofuran-3-yl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1188	(furan-2-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1189	(furan-3-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1190	(tetrahydrofuran-2-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1191	(tetrahydrofuran-3-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1192	(thiophen-2-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1193	(thiophen-3-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1194	(pyridin-2-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1195	(pyridin-3-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1196	(6-chloropyridin-3-yl)methyl	2-bromo-4-methyl-6-(heptafluoro-isopropyl)pyridin-3-yl
1197	Et	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1198	i-Pr	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1199	vinyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1200	propargyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1201	cyclobutyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1202	cyclopentyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1203	benzyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1204	3-cyanobenzyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1205	4-cyanobenzyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1206	3-chlorobenzyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1207	2-methoxyethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1208	2-cyanoethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1209	2-(methylthio)ethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1210	2-(ethylthio)ethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1211	1-methyl-2-(methylthio)ethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1212	2-(ethylsulfinyl)ethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1213	2-(ethylsulfonyl)ethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1214	2-fluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1215	2,2-difluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1216	2,2,2-trifluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1217	1,3-difluoro-2-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1218	1-chloro3-fluoro-2-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1219	1-methyl-2,2,2-trifluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl

TABLE 1-continued

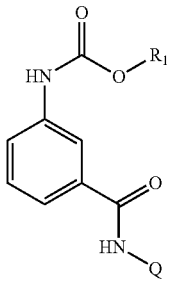
(1-A)



Compound No.	R_1	Q
1220	3,3,3-trifluoro-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1221	2,2,3,3,3-pentafluoro-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1222	3,3,4,4,4-pentafluoro-2-butyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1223	4,4,4-trifluoro-n-butyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1224	2,2,3,3-tetrafluorocyclobutyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1225	2-chloroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1226	2,2-dichloroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1227	2,2,2-trichloroethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1228	1,3-dichloro-2-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1229	3-chloro-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1230	2-bromoethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1231	2,2,2-tribromoethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1232	3-bromo-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1233	2-iodoethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1234	tetrahydrofuran-3-yl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1235	(furan-2-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1236	(furan-3-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1237	(tetrahydrofuran-2-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1238	(tetrahydrofuran-3-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1239	(thiophen-2-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1240	(thiophen-3-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1241	(pyridin-2-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1242	(pyridin-3-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1243	(6-chloropyridin-3-yl)methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1244	Et	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1245	i-Pr	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1246	vinyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1247	propargyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1248	cyclobutyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1249	cyclopentyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1250	benzyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1251	3-cyanobenzyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1252	4-cyanobenzyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1253	3-chlorobenzyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1254	2-methoxyethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1255	2-cyanoethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1256	2-(methylthio)ethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1257	2-(ethylthio)ethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1258	1-methyl-2-(methylthio)ethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1259	2-(ethylsulfinyl)ethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1260	2-(ethylsulfonyl)ethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1261	2-fluoroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1262	2,2-difluoroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1263	2,2,2-trifluoroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1264	1,3-difluoro-2-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1265	1-chloro-3-fluoro-2-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1266	1-methyl-2,2,2-trifluoroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1267	3,3,3-trifluoro-n-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1268	2,2,3,3,3-pentafluoro-n-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1269	3,3,4,4,4-pentafluoro-2-butyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1270	4,4,4-trifluoro-n-butyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1271	2,2,3,3-tetrafluorocyclobutyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1272	2-chloroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1273	2,2-dichloroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1274	2,2,2-trichloroethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1275	1,3-dichloro-2-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1276	3-chloro-n-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1277	2-bromoethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1278	2,2,2-tribromoethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1279	3-bromo-n-propyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1280	2-iodoethyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1281	tetrahydrofuran-3-yl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1282	(furan-2-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl

TABLE 1-continued

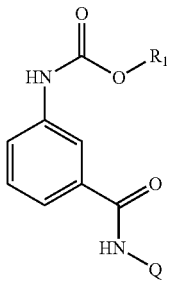
(1-A)



Compound No.	R_1	Q
1283	(furan-3-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1284	(tetrahydrofuran-2-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1285	(tetrahydrofuran-3-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1286	(thiophen-2-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1287	(thiophen-3-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1288	(pyridin-2-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1289	(pyridin-3-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1290	(6-chloropyridin-3-yl)methyl	2-bromo-6-methyl-4-heptafluoroisopropylphenyl
1291	Et	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1292	i-Pr	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1293	vinyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1294	propargyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1295	cyclobutyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1296	cyclopentyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1297	benzyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1298	3-cyanobenzyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1299	4-cyanobenzyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1300	3-chlorobenzyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1301	2-methoxyethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1302	2-cyanoethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1303	2-(methylthio)ethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1304	2-(ethylthio)ethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1305	1-methyl-2-(methylthio)ethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1306	2-(ethylsulfinyl)ethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1307	2-(ethylsulfonyl)ethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1308	2-fluoroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1309	2,2-difluoroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1310	2,2,2-trifluoroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1311	1,3-difluoro-2-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1312	1-chloro-3-fluoro-2-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1313	1-methyl-2,2,2-trifluoroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1314	3,3,3-trifluoro-n-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1315	2,2,3,3,3-pentafluoro-n-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1316	3,3,4,4,4-pentafluoro-2-butyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1317	4,4,4-trifluoro-n-butyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1318	2,2,3,3-tetrafluorocyclobutyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1319	2-chloroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1320	2,2-dichloroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1321	2,2,2-trichloroethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1322	1,3-dichloro-2-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1323	3-chloro-n-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1324	2-bromoethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1325	2,2,2-tribromoethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1326	3-bromo-n-propyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1327	2-iodoethyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1328	tetrahydrofuran-3-yl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1329	(furan-2-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1330	(furan-3-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1331	(tetrahydrofuran-2-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1332	(tetrahydrofuran-3-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1333	(thiophen-2-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1334	(thiophen-3-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1335	(pyridin-2-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1336	(pyridin-3-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1337	(6-chloropyridin-3-yl)methyl	2-iodo-6-methyl-4-heptafluoroisopropylphenyl
1338	Et	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1339	i-Pr	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1340	vinyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1341	propargyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1342	cyclobutyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1343	cyclopentyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1344	benzyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1345	3-cyanobenzyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl

TABLE 1-continued

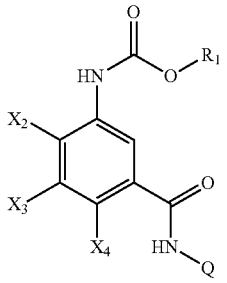
(1-A)



Compound No.	R_1	Q
1346	4-cyanobenzyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1347	3-chlorobenzyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1348	2-methoxyethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1349	2-cyanoethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1350	2-(methylthio)ethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1351	2-(ethylthio)ethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1352	1-methyl-2-(methylthio)ethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1353	2-(ethylsulfinyl)ethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1354	2-(ethylsulfonyl)ethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1355	2-fluoroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1356	2,2-difluoroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1357	2,2,2-trifluoroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1358	1,3-difluoro-2-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1359	1-chloro3-fluoro-2-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1360	1-methyl-2,2,2-trifluoroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1361	3,3,3-trifluoro-n-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1362	2,2,3,3,3-pentafluoro-n-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1363	3,3,4,4,4-pentafluoro-2-butyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1364	4,4,4-trifluoro-n-butyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1365	2,2,3,3-tetrafluorocyclobutyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1366	2-chloroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1367	2,2-dichloroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1368	2,2,2-trichloroethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1369	1,3-dichloro-2-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1370	3-chloro-n-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1371	2-bromoethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1372	2,2,2-tribromoethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1373	3-bromo-n-propyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1374	2-iodoethyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1375	tetrahydrofuran-3-yl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1376	(furan-2-yl)methyl	2-iodo-6-n-propyl-4-heptafluorisopropylphenylo
1377	(furan-3-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1378	(tetrahydrofuran-2-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1379	(tetrahydrofuran-3-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1380	(thiophen-2-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1381	(thiophen-3-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1382	(pyridin-2-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1383	(pyridin-3-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl
1384	(6-chloropyridin-3-yl)methyl	2-iodo-6-n-propyl-4-heptafluoroisopropylphenyl

TABLE 2

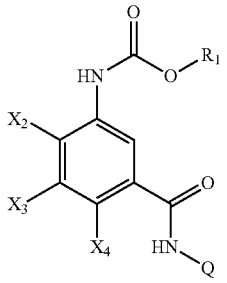
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1385	Me	H	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropyl phenyl
1386	Me	H	H	H	i-Pr	2,6-dimethy-4-heptafluoroisopropyl phenyl
1387	Me	H	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1388	F	H	H	H	Et	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1389	F	H	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1390	F	H	H	H	vinyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1391	F	H	H	H	propargyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1392	F	H	H	H	cyclobutyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1393	F	H	H	H	cyclopentyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1394	F	H	H	H	benzyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1395	F	H	H	H	3-cyanobenzyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1396	F	H	H	H	4-cyanobenzyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1397	F	H	H	H	3-chlorobenzyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1398	F	H	H	H	2-methoxyethyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1399	F	H	H	H	2-cyanoethyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1400	F	H	H	H	2-(methylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropyl phenyl
1401	F	H	H	H	2-(ethylthi)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1402	F	H	H	H	1-methyl-2-(methylthio)-ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1403	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1404	F	H	H	H	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1405	F	H	H	H	2-fluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1406	F	H	H	H	2,2-difluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1407	F	H	H	H	2,2,2-trifluoroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1408	F	H	H	H	1,3-difluoro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1409	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1410	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1411	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1412	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1413	F	H	H	H	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1414	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1415	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1416	F	H	H	H	2-chloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1417	F	H	H	H	2,2-dichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1418	F	H	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1419	F	H	H	H	1,3-dichloro-2-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1420	F	H	H	H	3-chloro-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1421	F	H	H	H	2-bromoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1422	F	H	H	H	2,2,2-tribromoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1423	F	H	H	H	3-bromo-n-propyl	2,6-dimethyl-4-heptafluoroisopropylphenyl

TABLE 2-continued

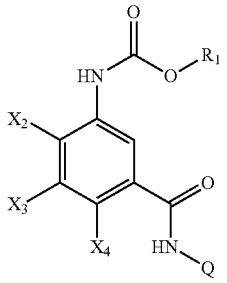
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1424	F	H	H	H	2-idoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1425	F	H	H	H	tetrahydrofuran-3-yl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1426	F	H	H	H	(furan-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1427	F	H	H	H	(furan-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1428	F	H	H	H	(tetrahydrofuran-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1429	F	H	H	H	(tetrahydrofuran-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1430	F	H	H	H	(thiophen-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1431	F	H	H	H	(thiophen-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1432	F	H	H	H	(pyridin-2-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1433	F	H	H	H	(pyridin-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1434	F	H	H	H	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1435	F	H	H	H	Et	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1436	F	H	H	H	i-Pr	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1437	F	H	H	H	vinyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1438	F	H	H	H	propargyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1439	F	H	H	H	cyclobutyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1440	F	H	H	H	cyclopentyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1441	F	H	H	H	benzyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1442	F	H	H	H	3-cyanobenzyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1443	F	H	H	H	4-cyanobenzyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1444	F	H	H	H	3-chlorobenzyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1445	F	H	H	H	2-methoxyethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1446	F	H	H	H	2-cyanoethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1447	F	H	H	H	2-(methylthio)ethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1448	F	H	H	H	2-(ethylthio)ethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1449	F	H	H	H	1-methyl-2-(methylthio)ethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1450	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1451	F	H	H	H	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1452	F	H	H	H	2-fluoroethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1453	F	H	H	H	2,2-difluoroethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1454	F	H	H	H	2,2,2-trifluoroethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1455	F	H	H	H	1,3-difluoro-2-propyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1456	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1457	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1458	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1459	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1460	F	H	H	H	3,3,4,4,4-pentafluoro-2-butyl	2,6-dimethyl-4-(nonafluoro2-butyl) phenyl
1385	Me	H	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl

TABLE 2-continued

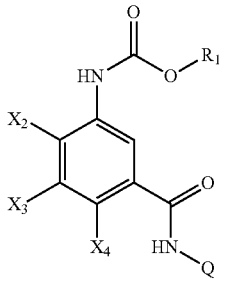
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1386	Me	H	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1387	Me	H	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1388	F	H	H	H	Et	2,6-dimethyl-4-heptafluoroisopropylphenyl
1389	F	H	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1390	F	H	H	H	vinyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1391	F	H	H	H	propargyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1392	F	H	H	H	cyclobutyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1393	F	H	H	H	cyclopentyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1394	F	H	H	H	benzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1395	F	H	H	H	3-cyanobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1396	F	H	H	H	4-cyanobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1397	F	H	H	H	3-chlorobenzyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1398	F	H	H	H	2-methoxyethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1399	F	H	H	H	2-cyanoethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1400	F	H	H	H	2-(methylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1401	F	H	H	H	2-(ethylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1402	F	H	H	H	1-methyl-2-(methylthio)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1403	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1404	F	H	H	H	2-(ethylsulfonyl)ethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1481	F	H	H	H	(6-chloropyridin-3-yl) methyl	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
1482	F	H	H	H	Et	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1483	F	H	H	H	i-Pr	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1484	F	H	H	H	vinyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1485	F	H	H	H	cyclobutyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1486	F	H	H	H	cyclopentyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1487	F	H	H	H	3-cyanobenzyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1488	F	H	H	H	4-cyanobenzyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1489	F	H	H	H	2-cyanoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1490	F	H	H	H	2-(methylthio)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1491	F	H	H	H	2-(ethylthio)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1492	F	H	H	H	1-methyl-2-(methylthio) ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1493	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1494	F	H	H	H	2-fluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1495	F	H	H	H	2,2-difluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1496	F	H	H	H	2,2,2-trifluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1497	F	H	H	H	1,3-difluoro-2-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1498	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1499	F	H	H	H	1-methyl-2,2,2-trifluoroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1500	F	H	H	H	3,-3,3-trifluoro-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1501	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1502	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1503	F	H	H	H	2,2,3,3-tetrafluorocyclo butyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1504	F	H	H	H	2-chloroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1505	F	H	H	H	2,2-dichloroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1506	F	H	H	H	2,2,2-trichloroethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1507	F	H	H	H	1,3-dichloro-2-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1508	F	H	H	H	3-chloro-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1509	F	H	H	H	2-bromoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1510	F	H	H	H	3-bromo-n-propyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1511	F	H	H	H	2-iodoethyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1512	F	H	H	H	(6-chloropyridin-3-yl) methyl	2,6-dichloro-4-(heptafluoro-n-propylthio)phenyl
1513	F	H	H	H	Et	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1514	F	H	H	H	i-Pr	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl

TABLE 2-continued

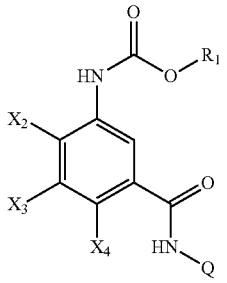
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1515	F	H	H	H	vinyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1516	F	H	H	H	cyclobutyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1517	F	H	H	H	cyclopentyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1518	F	H	H	H	3-cyanobenzyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1519	F	H	H	H	4-cyanobenzyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1520	F	H	H	H	2-cyanoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1521	F	H	H	H	2-(methylthio)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1522	F	H	H	H	2-(ethylthio)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1523	F	H	H	H	1-methyl-2-(methylthio) ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1524	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1525	F	H	H	H	2-fluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1526	F	H	H	H	2,2-difluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1527	F	H	H	H	2,2,2-trifluoroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1528	F	H	H	H	1,3-difluoro-2-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1529	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1530	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1531	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1532	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1533	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1534	F	H	H	H	2,2,3,3-tetrafluorocyclo butyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1535	F	H	H	H	2-chloroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1536	F	H	H	H	2,2-dichloroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1537	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1538	F	H	H	H	1,3-dichloro-2-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1539	F	H	H	H	3-chloro-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1540	F	H	H	H	2-bromoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1541	F	H	H	H	3-bromo-n-propyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1542	F	H	H	H	2-iodoethyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1543	F	H	H	H	(6-chloropyridin-3-yl)methyl	2,6-dibromo-4-(trifluoromethylsulfonyl)phenyl
1544	F	H	H	H	Et	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1545	F	H	H	H	i-Pr	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1546	F	H	H	H	vinyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1547	F	H	H	H	cyclobutyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1548	F	H	H	H	cyclopentyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1549	F	H	H	H	3-cyanobenzyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1550	F	H	H	H	4-cyanobenzyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1551	F	H	H	H	2-cyanoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1552	F	H	H	H	2-(methylthio)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1553	F	H	H	H	2-(ethylthio)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1554	F	H	H	H	1-methyl-2-(methylthio)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1555	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1556	F	H	H	H	2-fluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1557	F	H	H	H	2,2-difluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1558	F	H	H	H	2,2,2-trifluoroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1559	F	H	H	H	1,3-difluoro2-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1560	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1561	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1562	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1563	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1564	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1565	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl

TABLE 2-continued

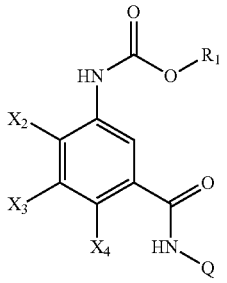
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1566	F	H	H	H	2-chloroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1567	F	H	H	H	2,2-dichloroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1568	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1569	F	H	H	H	1,3-dichloro-2-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1570	F	H	H	H	3-chloro-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1571	F	H	H	H	2-bromoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1572	F	H	H	H	3-bromo-n-propyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1573	F	H	H	H	2-iodoethyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1574	F	H	H	H	(6-chloropyridin-3-yl) methyl	2,6-dibromo-4-(pentafluoroethylthio)phenyl
1575	F	H	H	H	Et	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1576	F	H	H	H	i-Pr	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1577	F	H	H	H	vinyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1578	F	H	H	H	cyclobutyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1579	F	H	H	H	cyclopentyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1580	F	H	H	H	3-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1581	F	H	H	H	4-cyanobenzyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1582	F	H	H	H	2-cyanoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1583	F	H	H	H	2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1584	F	H	H	H	2-(ethylthio)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1585	F	H	H	H	1-methyl-2-(methylthio) ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1586	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1587	F	H	H	H	2-fluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1588	F	H	H	H	2,2-difluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1589	F	H	H	H	2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1590	F	H	H	H	1,3-difluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1591	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1592	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1593	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1594	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1595	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1596	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1597	F	H	H	H	2-chloroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1598	F	H	H	H	2,2-dichloroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1599	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1600	F	H	H	H	1,3-dichloro-2-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1601	F	H	H	H	3-chloro-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1602	F	H	H	H	2-bromoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1603	F	H	H	H	3-bromo-n-propyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1604	F	H	H	H	2-iodoethyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1605	F	H	H	H	(6-chloropyridin-3-yl) methyl	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1606	F	H	H	H	Et	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1607	F	H	H	H	i-Pr	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1608	F	H	H	H	vinyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1609	F	H	H	H	cyclobutyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1610	F	H	H	H	cyclopentyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1611	F	H	H	H	3-cyanobenzyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1612	F	H	H	H	4-cyanobenzyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1613	F	H	H	H	2-cyanoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1614	F	H	H	H	2-(methylthio)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1615	F	H	H	H	2-(ethylthio)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1616	F	H	H	H	1-methyl-2-(methylthio) ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1617	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1618	F	H	H	H	2-fluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1619	F	H	H	H	2,2-difluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl

TABLE 2-continued

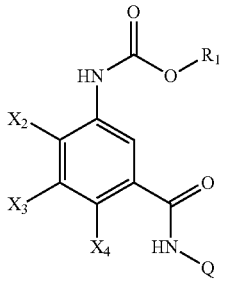
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1620	F	H	H	H	2,2,2-trifluoroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1621	F	H	H	H	1,3-difluoro-2-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1622	F	H	H	H	1-chloro-3-fluoro2-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1623	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1624	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1625	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1626	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1627	F	H	H	H	2,2,3,3-tetrafluorocyclo butyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1628	F	H	H	H	2-chloroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1629	F	H	H	H	2,2-dichloroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1630	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1631	F	H	H	H	1,3-dichloro-2-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1632	F	H	H	H	3-chloro-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1633	F	H	H	H	2-bromoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1634	F	H	H	H	3-bromo-n-propyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1635	F	H	H	H	2-iodoethyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1636	F	H	H	H	(6-chloropyridin-3-yl) methyl	2,6-dibromo-4-(heptafluoroisopropylthio)phenyl
1637	F	H	H	H	Et	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1638	F	H	H	H	i-Pr	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1639	F	H	H	H	vinyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1640	F	H	H	H	cyclobutyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1641	F	H	H	H	cyclopentyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1642	F	H	H	H	3-cyanobenzyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1643	F	H	H	H	4-cyanobenzyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1644	F	H	H	H	2-cyanoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1645	F	H	H	H	2-(methylthio)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1646	F	H	H	H	2-(ethylthio)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1647	F	H	H	H	1-methyl-2-(methylthio) ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1648	F	H	H	H	2-(ethylsulfinyl)ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1649	F	H	H	H	2-fluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1650	F	H	H	H	2,2-difluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1651	F	H	H	H	2,2,2-trifluoroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1652	F	H	H	H	1,3-difluoro-2-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1653	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1654	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1655	F	H	H	H	3,3,3-trifluoro-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1656	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1657	F	H	H	H	4,4,4-trifluoro-n-butyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1658	F	H	H	H	2,2,3,3-tetrafluorocyclo butyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1659	F	H	H	H	2-chloroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1660	F	H	H	H	2,2-dichloroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1661	F	H	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1662	F	H	H	H	1,3-dichloro-2-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1663	F	H	H	H	3-chloro-n-propyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1664	F	H	H	H	2-bromoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1665	F	H	H	H	3-bromo-n-propyl	2,6-dimethyl-4-(heptanuoro-n-propylthio)phenyl
1666	F	H	H	H	2-iodoethyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1667	F	H	H	H	(6-chloropyridin-3-yl)methyl	2,6-dimethyl-4-(heptafluoro-n-propylthio)phenyl
1668	F	H	H	H	2,2,2-trichloroethyl	2,6-dichloro-4-(trifluoromethylsu1finyl)phenyl
1669	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(trifluoromethylsulfinyl)phenyl
1670	F	H	H	H	2,2,2-trichloroethyl	2,6-dichloro-4-(pentafluoroethylsulfinyl)phenyl
1671	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(pentafluoroethylsulfinyl)phenyl
1672	F	H	H	H	2,2,2-trichloroethyl	2,6-dichloro-4-(pentafluoroethylsulfonyl)phenyl

TABLE 2-continued

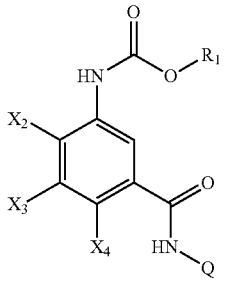
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1673	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(pentafluoroethylsulfonyl)phenyl
1674	F	H	H	H	2,2,2-trichloroethyl	2,6-dichloro-4-(heptafluoro-n-propyl sulfinyl)phenyl
1675	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(heptafluoro-n-propyl sulfinyl)phenyl
1676	F	H	H	H	2,2,2-trichloroethyl	2-chloro-6-methyl-4-(nonafluoro-2-butyl)phenyl
1677	F	H	H	H	2,2,2-trichloroethyl	2-bromo-6-methyl-4-(nonafluoro-2-butyl)phenyl
1678	F	H	H	H	2,2,2-trichloroethyl	2-iodo-6-methyl-4-(nonafluoro-2-butyl)phenyl
1679	F	H	H	H	2,2,2-trichloroethyl	2,6-dichloro-4-(nonafluoro-2-butyl)phenyl
1680	F	H	H	H	2,2,2-trichloroethyl	2,6-dibromo-4-(nonafluoro-2-butyl)phenyl
1681	F	H	H	H	Et	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1682	F	H	H	H	i-Pr	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1683	F	H	H	H	vinyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1684	F	H	H	H	cyclobutyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1685	F	H	H	H	cyclopentyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1686	F	H	H	H	3-cyanobenzyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1687	F	H	H	H	4-cyanobenzyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1688	F	H	H	H	2-cyanoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1689	F	H	H	H	2-(methylthio)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1690	F	H	H	H	2-(ethylthio)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1691	F	H	H	H	1-methyl-2-(methylthio) ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1692	F	H	H	H	2-(ethylsulfinyl)ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1693	F	H	H	H	2-fluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1694	F	H	H	H	2,2-difluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1695	F	H	H	H	2,2,2-trifluoroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1696	F	H	H	H	1,3-difluoro-2-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1697	F	H	H	H	1-chloro-3-fluoro-2-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1698	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1699	F	H	H	H	3,3,3-trifluoro-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1700	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1701	F	H	H	H	4,4,4-trifluoro-n-butyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1702	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1703	F	H	H	H	2-chloroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1704	F	H	H	H	2,2-dichloroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1705	F	H	H	H	2,2,2-trichloroethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl

TABLE 2-continued

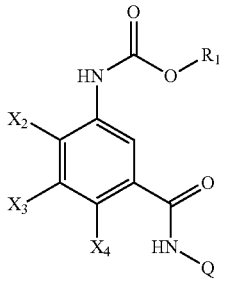
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1706	F	H	H	H	1,3-dichloro-2-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1707	F	H	H	H	3-chloro-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1708	F	H	H	H	2-bromoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1709	F	H	H	H	3-bromo-n-propyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1710	F	H	H	H	2-iodoethyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1711	F	H	H	H	(6-chloropyridin-3-yl) methyl	2-chloro-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1712	F	H	H	H	Et	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1713	F	H	H	H	i-Pr	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1714	F	H	H	H	vinyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1715	F	H	H	H	cyclobutyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1716	F	H	H	H	cyclopentyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1717	F	H	H	H	3-cyanobenzyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1718	F	H	H	H	4-cyanobenzyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1719	F	H	H	H	2-cyanoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1720	F	H	H	H	2-(methylthio)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1721	F	H	H	H	2-(ethylthio)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1722	F	H	H	H	1-methyl-2-(methylthio) ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1723	F	H	H	H	2-(ethylsulfinyl)ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1724	F	H	H	H	2-fluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1725	F	H	H	H	2,2-difluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1726	F	H	H	H	2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1727	F	H	H	H	1,3-difluoro-2-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1728	F	H	H	H	1-chloro-3-fluoro-2-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1729	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1730	F	H	H	H	3,3,3-trifluoro-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1731	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1732	F	H	H	H	4,4,4-trifluoro-n-butyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1733	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1734	F	H	H	H	2-chloroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1735	F	H	H	H	2,2-dichloroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl

TABLE 2-continued

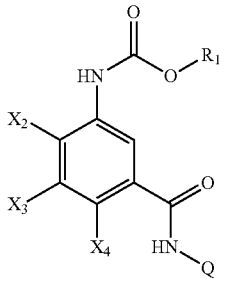
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1736	F	H	H	H	2,2,2-trichloroethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1737	F	H	H	H	1,3-dichloro-2-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1738	F	H	H	H	3-chloro-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1739	F	H	H	H	2-bromoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1740	F	H	H	H	3-bromo-n-propyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1741	F	H	H	H	2-iodoethyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1742	F	H	H	H	(6-chloropyridin-3-yl) methyl	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1743	F	H	H	H	Et	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1744	F	H	H	H	i-Pr	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1745	F	H	H	H	vinyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1746	F	H	H	H	cyclobutyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1747	F	H	H	H	cyclopentyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1748	F	H	H	H	3-cyanobenzyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1749	F	H	H	H	4-cyanobenzyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1750	F	H	H	H	2-cyanoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1751	F	H	H	H	2-(methylthio)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1752	F	H	H	H	2-(ethylthio)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1753	F	H	H	H	1-methyl-2-(methylthio) ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1754	F	H	H	H	2-(ethylsulfinyl)ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1755	F	H	H	H	2-fluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1756	F	H	H	H	2,2-difluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1757	F	H	H	H	2,2,2-trifluoroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1758	F	H	H	H	1,3-difluoro-2-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1759	F	H	H	H	1-chloro-3-fluoro-2-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1760	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1761	F	H	H	H	3,3,3-trifluoro-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1762	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1763	F	H	H	H	4,4,4-trifluoro-n-butyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1764	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1765	F	H	H	H	2-chloroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl

TABLE 2-continued

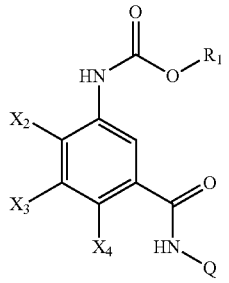
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1766	F	H	H	H	2,2-dichloroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1767	F	H	H	H	2,2,2-trichloroethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1768	F	H	H	H	1,3-dichloro-2-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1769	F	H	H	H	3-chloro-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1770	F	H	H	H	2-bromoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1771	F	H	H	H	3-bromo-n-propyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1772	F	H	H	H	2-iodoethyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1773	F	H	H	H	(6-chloropyridin-3-yl) methyl	2-iodo-4-methyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1774	F	H	H	H	Et	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1775	F	H	H	H	i-Pr	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1776	F	H	H	H	vinyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1777	F	H	H	H	cyclobutyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1778	F	H	H	H	cyclopentyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1779	F	H	H	H	3-cyanobenzyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1780	F	H	H	H	4-cyanobenzyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1781	F	H	H	H	2-cyanoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1782	F	H	H	H	2-(methylthio)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1783	F	H	H	H	2-(ethylthio)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1784	F	H	H	H	1-methyl-2-(methylthio) ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1785	F	H	H	H	2-(ethylsulfinyl)ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1786	F	H	H	H	2-fluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1787	F	H	H	H	2,2-difluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1788	F	H	H	H	2,2,2-trifluoroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1789	F	H	H	H	1,3-difluoro-2-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1790	F	H	H	H	1-chloro-3-fluoro-2-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1791	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1792	F	H	H	H	3,3,3-trifluoro-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1793	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1794	F	H	H	H	4,4,4-trifluoro-n-butyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1795	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl

TABLE 2-continued

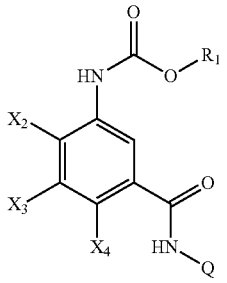
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1796	F	H	H	H	2-chloroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1797	F	H	H	H	2,2-dichloroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1798	F	H	H	H	2,2,2-trichloroethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1799	F	H	H	H	1,3-dichloro-2-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1800	F	H	H	H	3-chloro-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1801	F	H	H	H	2-bromoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1802	F	H	H	H	3-bromo-n-propyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1803	F	H	H	H	2-iodoethyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1804	F	H	H	H	(6-chloropyridin-3-yl) methyl	2,4-dimethyl-6-(1,1,1,3,3,3-hexafluoro isopropyloxy)pyridin-3-yl
1805	F	H	H	H	Et	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1806	F	H	H	H	i-Pr	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1807	F	H	H	H	vinyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1808	F	H	H	H	cyclobutyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1809	F	H	H	H	cyclopentyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1810	F	H	H	H	3-cyanobenzyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1811	F	H	H	H	4-cyanobenzyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1812	F	H	H	H	2-cyanoethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1813	F	H	H	H	2-(methylthio)ethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1814	F	H	H	H	2-(ethylthio)ethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1815	F	H	H	H	1-methyl-2-(methylthio) ethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1816	F	H	H	H	2-(ethylsulfinyl)ethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1817	F	H	H	H	2-fluoroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1818	F	H	H	H	2,2-difluoroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1819	F	H	H	H	2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1820	F	H	H	H	1,3-difluoro-2-propyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1821	F	H	H	H	1-chloro-3-fluoro-2-propyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1822	F	H	H	H	1-methyl-2,2,2-trifluoroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1823	F	H	H	H	3,3,3-trifluoro-n-propyl	2-bromo-4-methyl-6-(heptafluoro isoproPyl)pyridin-3-yl
1824	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1825	F	H	H	H	4,4,4-trifluoro-n-butyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl

TABLE 2-continued

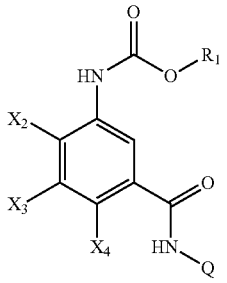
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1826	F	H	H	H	2,2,3,3-tetrafluorocyclobutyl	2-bromo--methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1827	F	H	H	H	2-chloroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1828	F	H	H	H	2,2-dichloroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1829	F	H	H	H	2,2,2-trichloroethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1830	F	H	H	H	1,3-dichloro-2-propyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1831	F	H	H	H	3-chloro-n-propyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1832	F	H	H	H	2-bromoethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1833	F	H	H	H	3-bromo-n-propyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1834	F	H	H	H	2-iodoethyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1835	F	H	H	H	(6-chloropyridin-3-yl)methyl	2-bromo-4-methyl-6-(heptafluoro isopropyl)pyridin-3-yl
1836	F	H	H	H	Et	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1837	F	H	H	H	i-Pr	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1838	F	H	H	H	vinyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1839	F	H	H	H	cyclobutyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1840	F	H	H	H	cyclopentyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1841	F	H	H	H	3-cyanobenzyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1842	F	H	H	H	4-cyanobenzyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1843	F	H	H	H	2-cyanoethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1844	F	H	H	H	2-(methylthio)ethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1845	F	H	H	H	2-(ethylthio)ethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1846	F	H	H	H	1-methyl-2-(methylthio) ethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1847	F	H	H	H	2-(ethylsulfinyl)ethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1848	F	H	H	H	2-fluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1849	F	H	H	H	2,2-difluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1850	F	H	H	H	2,2,2-trifluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1851	F	H	H	H	1,3-difluoro-2-Propyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1852	F	H	H	H	1-chloro-3-fluoro-2-propyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1853	F	H	H	H	1-methyl-2,2,2-trifluoroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1854	F	H	H	H	3,3,3-trifluoro-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1855	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl

TABLE 2-continued

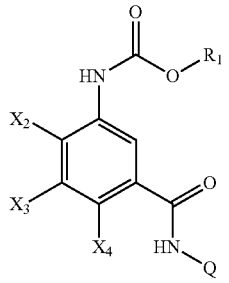
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1856	F	H	H	H	4,4,4-trifluoro-n-butyl	2-chloro-8-methyl-4-heptafluoroisopropyl phenyl
1857	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1858	F	H	H	H	2-chloroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1859	F	H	H	H	2,2-dichloroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1860	F	H	H	H	2,2,2-trichloroethyl	2-chloro-6-methyl-4-heptafluoroisopropyl phenyl
1861	F	H	H	H	1,3-dichloro-2-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1862	F	H	H	H	3-chloro-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1863	F	H	H	H	2-bromoethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1864	F	H	H	H	3-bromo-n-propyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1865	F	H	H	H	2-iodoethyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1866	F	H	H	H	(6-chloropyridin-3-yl) methyl	2-chloro-6-methyl-4-heptafluoroisopropylphenyl
1867	F	H	H	H	Et	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1868	F	H	H	H	i-Pr	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1869	F	H	H	H	vinyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1870	F	H	H	H	cyclobutyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1871	F	H	H	H	cyclopentyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1872	F	H	H	H	3-cyanobenzyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1873	F	H	H	H	4-cyanobenzyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1874	F	H	H	H	2-cyanoethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1875	F	H	H	H	2-(methylthio)ethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1876	F	H	H	H	2-(ethylthio)ethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1877	F	H	H	H	1-methyl-2-(methylthio) ethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1878	F	H	H	H	2-(ethylsulfinyl)ethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1879	F	H	H	H	2-fluoroethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1880	F	H	H	H	2,2-difluoroethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1881	F	H	H	H	2,2,2-trifluoroethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1882	F	H	H	H	1,3-difluoro-2-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1883	F	H	H	H	1-chloro-3-fluoro-2-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1884	F	H	H	H	1-methyl-2,2,2-trifluoro ethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1885	F	H	H	H	3,3,3-trifluoro-n-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1886	F	H	H	H	2,2,3,3,3-pentafluoro-n-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1887	F	H	H	H	4,4,4-trifluoro-n-butyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1888	F	H	H	H	2,2,3,3-tetrafluoro cyclobutyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl

TABLE 2-continued

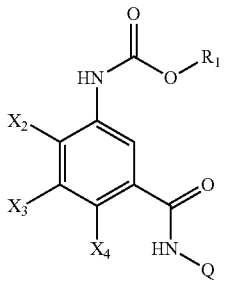
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1889	F	H	H	H	2-chloroethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1890	F	H	H	H	2,2-dichloroethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1891	F	H	H	H	2,2,2-trichloroethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1892	F	H	H	H	1,3-dichloro-2-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1893	F	H	H	H	3-chloro-n-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1894	F	H	H	H	2-bromoethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1895	F	H	H	H	3-bromo-n-propyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1896	F	H	H	H	2-iodoethyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1897	F	H	H	H	(6-chloropyridin-3-yl)methyl	2-iodo-6-n-propyl-4-heptafluoro isopropylphenyl
1898	Cl	H	H	H	i-Pr	2-methyl-4-heptafluoroisoprppylphenyl
1899	Cl	H	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1900	Cl	H	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1901	Cl	H	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1902	Cl	H	H	H	2,2,2-trichloroethyl	2,4-bistrifluoromethylphenyl
1903	Cl	H	H	H	2,2,2-trichloroethyl	2-(1,1,1,3,3,3-hexafluoroisopropyloxy)-4-methylpyridin-5-yl
1904	Br	H	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1905	Br	H	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1906	F	F	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1907	F	F	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1908	F	F	F	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1909	H	Me	H	H	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1910	H	Me	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1911	H	Me	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1912	H	Me	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1913	H	MeO	H	H	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1914	H	MeO	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1915	H	F	H	H	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1916	H	F	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1917	H	F	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1918	H	F	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1919	H	Cl	H	H	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1920	H	Cl	H	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1921	H	Cl	H	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1922	H	Cl	H	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1923	H	H	Me	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1924	H	H	CF_3	H	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1925	H	H	CF_3	H	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1926	H	H	CF_3	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1927	H	H	CF_3	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1928	H	H	NH_2	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1929	H	H	Me_2N	H	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1930	H	H	H	Me	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1931	H	H	H	Me	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1932	H	H	H	Me	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1933	H	H	H	Me	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1934	H	H	H	F	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1935	H	H	H	F	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1936	H	H	H	F	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1937	H	H	H	F	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1938	H	H	H	Cl	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1939	H	H	H	Cl	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl

TABLE 2-continued

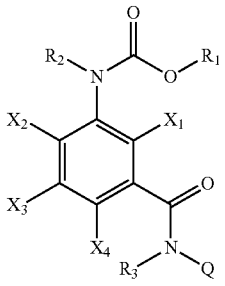
(1-B)



Compound No.	X_1	X_2	X_3	X_4	R_1	Q
1940	H	H	H	Cl	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1941	H	H	H	Cl	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl
1942	H	H	H	Br	i-Pr	2-methyl-4-heptafluoroisopropylphenyl
1943	H	H	H	Br	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1944	H	H	H	I	2,2,2-trichloroethyl	2-methyl-4-heptafluoroisopropylphenyl
1945	H	H	H	I	i-Pr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1946	H	H	H	I	t-Bu	2-methyl-4-heptafluoroisopropylphenyl
1947	H	H	H	I	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl

TABLE 3

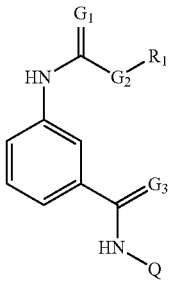
(1-C)



Compound No.	X_1	X_2	X_3	X_4	R_1	R_2	R_3	Q
1948	H	H	H	H	2,2,2-trichloroethyl	Me	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
1949	H	H	H	H	2,2,2-trichloroethyl	H	Me	2-methyl-4-heptafluoroisopropyl-phenyl
1950	H	H	H	H	i-Pr	H	Me	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1951	H	H	H	H	2,2,2-trichloroethyl	H	Me	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1952	H	H	H	H	i-Pr	H	Me	2-methyl-6-chloro-4-heptafluoroisopropyl-phenyl
1953	H	H	H	H	2,2,2-trichloroethyl	H	Me	2-methyl-6-chloro-4-heptafluoroisopropyl-phenyl
1954	H	H	H	H	i-Pr	H	Me	2-methyl-6-bromo-4-heptafluoroisopropyl-phenyl
1955	H	H	H	H	2,2,2-trichloroethyl	H	Me	2-methyl-6-bromo-4-heptafluoroisopropyl-phenyl
1956	H	H	H	H	2,2,2-trichloroethyl	H	Et	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1957	H	H	H	H	2,2,2-trichloroethyl	H	i-Pr	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1958	H	H	H	H	2,2,2-trichloro	Me	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1959	F	H	H	H	2,2,2-trichloroethyl	Me	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1960	H	H	MeNH	H	i-Pr	Me	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl

TABLE 4

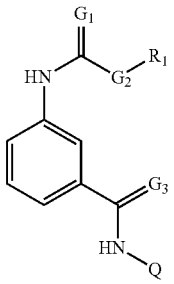
(1-D)



Compound No.	G_1	G_2	G_3	R_1	Q
1961	O	S	O	Me	2,6-dimethyl-4-heptafluoroisopropylphenyl
1962	O	S	O	Et	2,6-dimethyl-4-heptafluoroisopropylphenyl

TABLE 4-continued

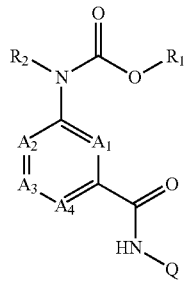
(1-D)



Compound No.	G_1	G_2	G_3	R_1	Q
1963	O	O	S	iPr	2,6-dimethyl-4-heptafluoroisopropylphenyl
1964	O	O	S	2,2,2-trichloroethyl	2,6-dimethyl-4-heptafluoroisopropylphenyl

TABLE 5

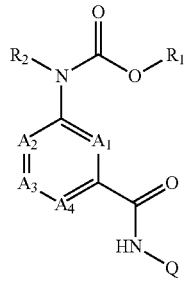
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
1965	N	C	C	C	i-Pr	H	2-methyl-4-heptafluoroisopropylphenyl
1966	N	C	C	C	2,2,2-trichloroethyl	H	2-methyl-4-heptafluoroisopropylphenyl
1967	N	C	C	C	i-Pr	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1968	N	C	C	C	2,2,2-trichloroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1969	N	C	C	C	2-chloroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1970	N	C	C	C	2-fluoroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1971	N	C	C	C	Et	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1972	N	C	C	C	vinyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1973	N	C	C	C	cyclobutyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1974	N	C	C	C	cyclopentyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1975	N	C	C	C	3-cyanobenzyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1976	N	C	C	C	4-cyanobenzyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1977	N	C	C	C	2-cyanoethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1978	N	C	C	C	2-(methylthio)ethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1979	N	C	C	C	2-(ethylthio)ethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1980	N	C	C	C	1-methyl-2-(methylthio)ethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1981	N	C	C	C	2-(ethylsulfinyl)ethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl

TABLE 5-continued

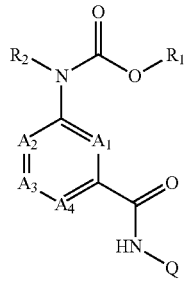
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
1982	N	C	C	C	2-fluoroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1983	N	C	C	C	2,2-difluoroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1984	N	C	C	C	2,2,2-trifluoroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1985	N	C	C	C	1,3-difluoro-2-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1986	N	C	C	C	1-chloro-3-fluoro-2-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1987	N	C	C	C	1-methyl-2,2,2-trifluoroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1988	N	C	C	C	3,3,3-trifluoro-n-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1989	N	C	C	C	2,2,3,3,3-pentafluoro-n-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1990	N	C	C	C	4,4,4-trifluoro-n-butyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1991	N	C	C	C	2,2,3,3-tetrafluorocyclobutyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1992	N	C	C	C	2,2-dichloroethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1993	N	C	C	C	1,3-dichloro-2-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1994	N	C	C	C	3-chloro-n-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1995	N	C	C	C	2-bromoethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1996	N	C	C	C	3-bromo-n-propyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1997	N	C	C	C	2-iodoethyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1998	N	C	C	C	(6-chloropyridin-3-yl)methyl	H	2,6-dimethyl-4-heptafluoroisopropyl-phenyl
1999	N	C	C	C	Et	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2000	N	C	C	C	i-Pr	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2001	N	C	C	C	vinyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2002	N	C	C	C	cyclobutyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2003	N	C	C	C	cyclopentyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2004	N	C	C	C	3-cyanobenzyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2005	N	C	C	C	4-cyanobenzyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)
2006	N	C	C	C	2-cyanoethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2007	N	C	C	C	2-(methylthio)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2008	N	C	C	C	2-(ethylthio)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2009	N	C	C	C	1-methyl-2-(methylthio)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2010	N	C	C	C	2-(ethylsulfinyl)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2011	N	C	C	C	2-fluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl

TABLE 5-continued

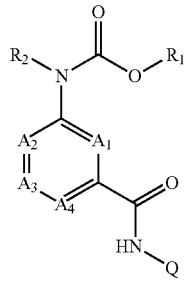
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
2012	N	C	C	C	2,2-difluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2013	N	C	C	C	2,2,2-trifluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2014	N	C	C	C	1,3-difluoro-2-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2015	N	C	C	C	1-chloro-3-fluoro-2-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2016	N	C	C	C	1-methyl-2,2,2-trifluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2017	N	C	C	C	3,3,3-trifluoro-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2018	N	C	C	C	2,2,3,3,3-pentafluoro-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2019	N	C	C	C	4,4,4-trifluoro-n-butyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2020	N	C	C	C	2,2,3,3-tetrafluorocyclobutyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2021	N	C	C	C	2-chloroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2022	N	C	C	C	2,2-dichloroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2023	N	C	C	C	2,2,2-trichloroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2024	N	C	C	C	1,3-dichloro-2-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2025	N	C	C	C	3-chloro-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2026	N	C	C	C	2-bromoethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2027	N	C	C	C	3-bromo-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2028	N	C	C	C	2-iodoethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2029	N	C	C	C	(6-chloropyridin-3-yl)methyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2030	N	C	C	C	Et	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2031	N	C	C	C	i-Pr	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2032	N	C	C	C	vinyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2033	N	C	C	C	cyclobutyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2034	N	C	C	C	cyclopentyl	H	2,6-dibromo4-(heptafluoro-n-propylthio)phenyl
2035	N	C	C	C	3-cyanobenzyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2036	N	C	C	C	4-cyanobenzyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2037	N	C	C	C	2-cyanoethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2038	N	C	C	C	2-(methylthio)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2039	N	C	C	C	2-(ethylthio)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2040	N	C	C	C	1-methyl-2-(methylthio)ethyl	H	2,6-dibromo4-(heptafluoro-n-propylthio)phenyl
2041	N	C	C	C	2-(ethylsulfinyl)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl

TABLE 5-continued

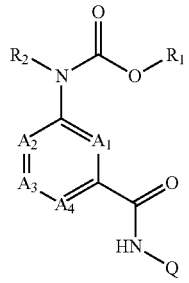
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
2042	N	C	C	C	2-fluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2043	N	C	C	C	2,2-difluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2044	N	C	C	C	2,2,2-trifluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2045	N	C	C	C	1,3-difluoro-2-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2046	N	C	C	C	1-chloro-3-fluoro-2-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2047	N	C	C	C	1-methyl-2,2,2-trifluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2048	N	C	C	C	3,3,3-trifluoro-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2049	N	C	C	C	2,2,3,3,3-pentafluoro-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2050	N	C	C	C	4,4,4-trifluoro-n-butyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2051	N	C	C	C	2,2,3,3-tetrafluorocyclobutyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2052	N	C	C	C	2-chloroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2053	N	C	C	C	2,2-dichloroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2054	N	C	C	C	2,2,2-trichloroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2055	N	C	C	C	1,3-dichloro-2-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2056	N	C	C	C	3-chloro-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2057	N	C	C	C	2-bromoethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2058	N	C	C	C	3-bromo-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2059	N	C	C	C	2-iodoethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2060	N	C	C	C	(6-chloropyridin-3-yl)methyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2061	N-oxide	C	C	C	i-Pr	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2062	N-oxide	C	C	C	2,2,2-trichloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2063	N-oxide	C	C	C	Et	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2064	N-oxide	C	C	C	vinyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2065	N-oxide	C	C	C	cyclobutyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2066	N-oxide	C	C	C	cyclopentyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2067	N-oxide	C	C	C	3-cyanobenzyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2068	N-oxide	C	C	C	4-cyanobenzyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2069	N-oxide	C	C	C	2-cyanoethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2070	N-oxide	C	C	C	2-(methylthio)ethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2071	N-oxide	C	C	C	2-(ethylthio)ethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl

TABLE 5-continued

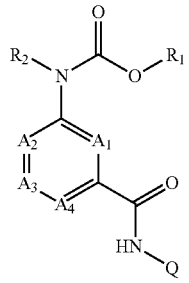
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
2072	N-oxide	C	C	C	1-methyl-2-(methylthio)ethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2073	N-oxide	C	C	C	2-(ethylsulfinyl)ethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2074	N-oxide	C	C	C	2-fluoroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2075	N-oxide	C	C	C	2,2-difluoroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2076	N-oxide	C	C	C	2,2,2-trifluoroethyl	H	2,6-dimethyl-4-heptafluoro isopropylphenyl
2077	N-oxide	C	C	C	1,3-difluoro-2-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2078	N-oxide	C	C	C	1-chloro-3-fluoro-2-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2079	N-oxide	C	C	C	1-methyl-2,2,2-trifluoroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2080	N-oxide	C	C	C	3,3,3-trifluoro-n-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2081	N-oxide	C	C	C	2,2,3,3,3-pentafluoro-n-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2082	N-oxide	C	C	C	4,4,4-trifluoro-n-butyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2083	N-oxide	C	C	C	2,2,3,3-tetrafluorocyclobutyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2084	N-oxide	C	C	C	2-chloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2085	N-oxide	C	C	C	2,2-dichloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2086	N-oxide	C	C	C	1,3-dichloro-2-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2087	N-oxide	C	C	C	3-chloro-n-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2088	N-oxide	C	C	C	2-bromoethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2089	N-oxide	C	C	C	3-bromo-n-propyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2090	N-oxide	C	C	C	2-iodoethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2091	N-oxide	C	C	C	(6-chloropyridin-3-yl)methyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2092	N-oxide	C	C	C	Et	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2093	N-oxide	C	C	C	i-Pr	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2094	N-oxide	C	C	C	vinyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2095	N-oxide	C	C	C	cyclobutyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2096	N-oxide	C	C	C	cyclopentyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2097	N-oxide	C	C	C	3-cyanobenzyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2098	N-oxide	C	C	C	4-cyanobenzyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2099	N-oxide	C	C	C	2-cyanoethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2100	N-oxide	C	C	C	2-(methylthio)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2101	N-oxide	C	C	C	2-(ethylthio)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl

TABLE 5-continued

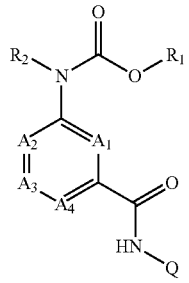
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
2102	N-oxide	C	C	C	1-methyl-2-(methylthio)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2103	N-oxide	C	C	C	2-(ethylsulfinyl)ethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2104	N-oxide	C	C	C	2-fluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2105	N-oxide	C	C	C	2,2-difluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2106	N-oxide	C	C	C	2,2,2-trifluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2107	N-oxide	C	C	C	1,3-difluoro-2-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2108	N-oxide	C	C	C	1-chloro-3-fluoro-2-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2109	N-oxide	C	C	C	1-methyl-2,2,2-trifluoroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2110	N-oxide	C	C	C	3,3,3-trifluoro-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2111	N-oxide	C	C	C	2,2,3,3,3-pentafluoro-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2112	N-oxide	C	C	C	4,4,4-trifluoro-n-butyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2113	N-oxide	C	C	C	2,2,3,3-tetrafluorocyclobutyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2114	N-oxide	C	C	C	2-chloroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2115	N-oxide	C	C	C	2,2-dichloroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2116	N-oxide	C	C	C	2,2,2-trichloroethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2117	N-oxide	C	C	C	1,3-dichloro-2-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2118	N-oxide	C	C	C	3-chloro-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2119	N-oxide	C	C	C	2-bromoethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2120	N-oxide	C	C	C	3-bromo-n-propyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2121	N-oxide	C	C	C	2-iodoethyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2122	N-oxide	C	C	C	(6-chloropyridin-3-yl)methyl	H	2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl
2123	N-oxide	C	C	C	Et	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2124	N-oxide	C	C	C	i-Pr	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2125	N-oxide	C	C	C	vinyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2126	N-oxide	C	C	C	cyclobutyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2127	N-oxide	C	C	C	cyclopentyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2128	N-oxide	C	C	C	3-cyanobenzyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2129	N-oxide	C	C	C	4-cyanobenzyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2130	N-oxide	C	C	C	2-cyanoethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2131	N-oxide	C	C	C	2-(methylthio)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl

TABLE 5-continued

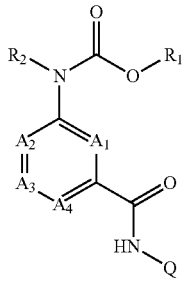
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
2132	N-oxide	C	C	C	2-(ethylthio)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2133	N-oxide	C	C	C	1-methyl-2-(methylthio)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2134	N-oxide	C	C	C	2-(ethylsulfinyl)ethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2135	N-oxide	C	C	C	2-fluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2136	N-oxide	C	C	C	2,2-difluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2137	N-oxide	C	C	C	2,2,2-trifluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2138	N-oxide	C	C	C	1,3-difluoro-2-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2139	N-oxide	C	C	C	1-chloro-3-fluoro-2-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2140	N-oxide	C	C	C	1-methyl-2,2,2-trifluoroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2141	N-oxide	C	C	C	3,3,3-trifluoro-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2142	N-oxide	C	C	C	2,2,3,3,3-pentafluoro-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2143	N-oxide	C	C	C	4,4,4-trifluoro-n-butyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2144	N-oxide	C	C	C	2,2,3,3-tetrafluorocyclobutyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2145	N-oxide	C	C	C	2-chloroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2146	N-oxide	C	C	C	2,2-dichloroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2147	N-oxide	C	C	C	2,2,2-trichloroethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2148	N-oxide	C	C	C	1,3-dichloro-2-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2149	N-oxide	C	C	C	3-chloro-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2150	N-oxide	C	C	C	2-bromoethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2151	N-oxide	C	C	C	3-bromo-n-propyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2152	N-oxide	C	C	C	2-iodoethyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2153	N-oxide	C	C	C	(6-chloropyridin-3-yl)methyl	H	2,6-dibromo-4-(heptafluoro-n-propylthio)phenyl
2154	C	N	C	C	i-Pr	H	2-methyl-4-heptafluoroisopropylphenyl
2155	C	N	C	C	2,2,2-trichloroethyl	H	2-methyl-4-heptafluoroisopropylphenyl
2156	C	N	C	C	i-Pr	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2157	C	N	C	C	2,2,2-trichloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2158	C	C	N	C	i-Pr	H	2-methyl-4-heptafluoro-isopropylphenyl
2159	C	C	N	C	2,2,2-trichloroethyl	H	2-methyl-4-heptafluoro-isopropylphenyl
2160	C	C	N	C	i-Pr	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2161	C	C	N	C	2,2,2-trichloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl

TABLE 5-continued

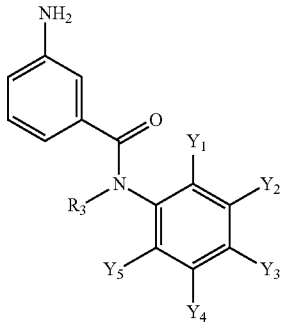
(1-E)



Compound No.	A_1	A_2	A_3	A_4	R_1	R_2	Q
2162	C	C	C	N	i-Pr	H	2-methyl-4-heptafluoro-isopropylphenyl
2163	C	C	C	N	2,2,2-trichloroethyl	H	2-methyl-4-heptafluoro-isopropylphenyl
2164	C	C	C	N	i-Pr	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2165	C	C	C	N	2,2,2-trichloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2166	C	C	C	N-oxide	i-Pr	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2167	C	C	C	N-oxide	2,2,2-trichloroethyl	H	2,6-dimethyl-4-heptafluoro-isopropylphenyl
2168	N	C	C	C	2,2,2-trichloroethyl	Me	2,6-dimethyl-4-heptafluoro-isopropylphenyl

TABLE 6

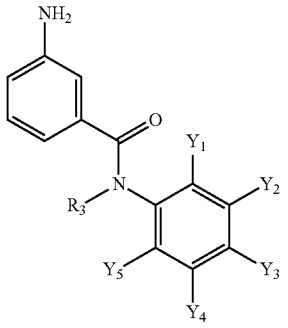
(4-A)



Compound No.	R_3	Y_1	Y_2	Y_3	Y_4	Y_5
I-1	H	Me	H	heptafluoro-n-propyl	H	Me
I-2	H	H	H	heptafluoroisopropyl	H	H
I-3	H	H	Me	heptafluoroisopropyl	H	H
I-4	H	H	MeO	heptafluoroisopropyl	H	H
I-5	H	H	Cl	heptafluoroisopropyl	H	H
I-6	H	Me	H	heptafluoroisopropyl	H	H
I-7	H	Me	H	heptafluoroisopropyl	H	Me
I-8	H	Me	H	heptafluoroisopropyl	H	phenyl
I-9	H	Me	H	heptafluoroisopropyl	Me	H
I-10	H	Me	Me	heptafluoroisopropyl	H	H
I-11	H	Me	Me	heptafluoroisopropyl	H	Cl
I-12	H	Me	I	heptafluoroisopropyl	H	Cl
I-13	Me	Me	H	heptafluoroisopropyl	H	Me
I-14	i-Pr	Me	H	heptafluoroisopropyl	H	Me
I-15	H	Et	H	heptafluoroisopropyl	H	H
I-16	H	Et	H	heptafluoroisopropyl	H	Me
I-17	H	Et	H	heptafluoroisopropyl	H	Et
I-18	H	Et	H	heptafluoroisopropyl	H	I
I-19	H	n-Pr	H	heptafluoroisopropyl	H	H
I-20	H	i-Pr	H	heptafluoroisopropyl	H	Me

TABLE 6-continued

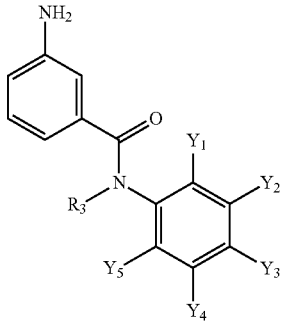
(4-A)



Compound No.	R_3	Y_1	Y_2	Y_3	Y_4	Y_5
I-21	H	MeO	H	heptafluoroisopropyl	H	Me
I-22	H	Cl	H	heptafluoroisopropyl	H	Et
I-23	H	Cl	H	heptafluoroisopropyl	Me	H
I-24	H	Cl	H	heptafluoroisopropyl	MeO	H
I-25	H	Cl	Me	heptafluoroisopropyl	H	Me
I-26	H	Br	H	heptafluoroisopropyl	H	Me
I-27	H	Br	H	heptafluoroisopropyl	H	Et
I-28	H	Br	H	heptafluoroisopropyl	H	n-Pr
I-29	H	Br	H	heptafluoroisopropyl	H	n-Bu
I-30	H	Br	Me	heptafluoroisopropyl	H	Me
I-31	H	I	H	heptafluoroisopropyl	H	Me
I-32	H	I	H	heptafluoroisopropyl	H	n-Pr
I-33	H	Me	H	nonafluoro-n-butyl	H	Me
I-34	H	Me	H	nonafluoro-2-butyl	H	Me
I-35	H	H	H	trifluoromethylthio	H	H
I-36	H	Br	H	trifluoromethylthio	H	Br
I-37	H	H	H	trifluoromethylsulfonyl	H	H
I-38	H	Br	H	trifluoromethylsulfonyl	H	Br
I-39	H	Me	H	2,2,2-trifluoroethoxy	H	H
I-40	H	H	H	heptafluoroisopropylthio	H	H

TABLE 6-continued

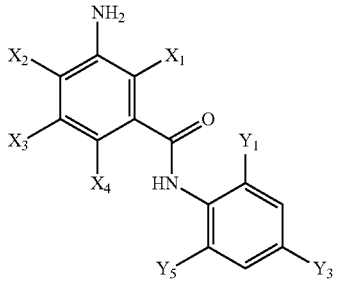
(4-A)



Compound No.	R_3	Y_1	Y_2	Y_3	Y_4	Y_5
I-41	H	Cl	H	heptafluoroisopropylthio	H	Cl
I-42	H	Br	H	heptafluoroisopropylthio	H	Br
I-43	H	Cl	H	heptafluoro-n-propylthio	H	Cl
I-44	H	Br	H	heptafluoro-n-propylthio	H	Br
I-45	H	Cl	H	heptafluoroisopropylsulfonyl	H	Cl
I-46	H	Br	H	nonafluoro-n-butylthio	H	Br
I-47	H	Br	H	pentafluoroethylthio	H	Br
I-48	H	Br	H	heptafluoro-n-propylsulfinyl	H	Br
I-49	Me	Me	H	heptafluoro-n-propylthio	H	Me
I-50	Me	Br	H	heptafluoro-n-propylthio	H	Br

TABLE 7

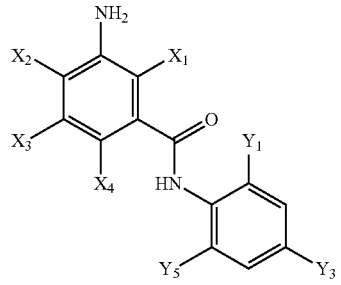
(4-B)



Compound No.	X_1	X_2	X_3	X_4	Y_1	Y_3	Y_5
I-51	Me	H	H	H	Me	heptafluoroisopropyl	H
I-52	Me	H	H	H	Me	heptafluoroisopropyl	Me
I-53	H	Me	H	H	Me	heptafluoroisopropyl	H
I-54	H	Me	H	H	Me	heptafluoroisopropyl	Me
I-55	H	H	H	Me	Me	heptafluoroisopropyl	H
I-56	H	H	H	Me	Me	heptafluoroisopropyl	Me
I-59	F	H	H	H	Me	heptafluoroisopropyl	Me
I-60	F	H	H	H	Me	heptafluoroisopropylthio	Me
I-61	H	F	H	H	Me	heptafluoroisopropyl	Me
I-62	H	H	H	F	Me	heptafluoroisopropyl	H
I-63	H	H	H	F	Me	heptafluoroisopropyl	Me
I-64	Cl	H	H	H	Me	heptafluoroisopropyl	H
I-65	Cl	H	H	H	Me	heptafluoroisopropyl	Me
I-66	H	Cl	H	H	Me	heptafluoroisopropyl	H
I-67	H	Cl	H	H	Me	heptafluoroisopropyl	Me
I-68	H	H	H	Cl	Me	heptafluoroisopropyl	H
I-69	H	H	H	Cl	Me	heptafluoroisopropyl	Me
I-70	Br	H	H	H	Me	heptafluoroisopropyl	Me
I-71	H	H	H	Br	Me	heptafluoroisopropyl	H
I-72	H	I	H	H	Me	heptafluoroisopropyl	H
I-73	H	H	H	I	Me	heptafluoroisopropyl	H

TABLE 7-continued

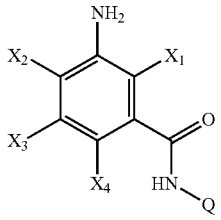
(4-B)



Compound No.	X_1	X_2	X_3	X_4	Y_1	Y_3	Y_5
I-74	H	H	H	I	Me	heptafluoroisopropyl	Me
I-75	H	H	CF_3	H	Me	heptafluoroisopropyl	H
I-76	H	H	CF_3	H	Me	heptafluoroisopropyl	Me
I-77	H	MeO	H	H	Me	heptafluoroisopropyl	H
I-78	H	H	NH_2	H	Me	heptafluoroisopropyl	H
I-79	H	H	NH_2	H	Me	heptafluoroisopropyl	Me
I-80	Cl	Cl	H	Cl	Me	heptafluoroisopropyl	H

TABLE 8

(4-C)



Compound No.	X_1	X_2	X_3	X_4	Q
I-81	H	H	H	H	2-methyl-4-heptafluoroisopropyl-1-naphthyl
I-82	H	H	H	H	4-heptafluoroisopropyl-5,6,7,8-tetrahydro-1-naphthyl
I-83	H	H	H	H	2-chloro-4-heptafluoroisopropyl-5,6,7,8-tetrahydro-1-naphthyl
I-84	H	H	H	H	2-((1,1,1,3,3,3-hexafluoro2-propyloxy)pyridin-5-yl
I-85	Cl	H	H	H	2-(1,1,1,3,3,3-hexafluoro-2-propyloxy)-4-methylpyridin-5-yl
I-86	H	H	H	H	2-bromo-4-methyl-6-(1,1,1,3,3,3-hexafluoro-2-propyloxy)pyridin-3-yl

Table 9 shows the physical properties of the compounds represented by formulae (1) and (4) of the present invention. This table also shows ^{1}H-NMR shift values obtained by using tetramethylsilane as an internal reference material, and chloroform-d as a solvent.

TABLE 9

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
3	δ 1.30(6H, d, J = 6.3 Hz), 2.41(3H, s), 5.00-5.05(1H, m), 6.92(1H, s), 7.40-7.61(5H, m), 7.93(1H, s), 8.01(1H, s), 8.21(1H, d, J = 8.8 Hz)
4	δ 0.96(3H, t, J = 7.3 Hz), 1.38-1.47(2H, m), 1.63-1.71(2H, m), 2.41(3H, s), 4.19(2H, t, J = 6.6 Hz), 6.83(1H, s), 7.42-7.62(5H, m), 7.83(1H, s), 8.00(1H, s), 8.25(1H, d, J = 8.5 Hz)
5	δ 0.98(6H, d, J = 6.8 Hz), 1.94-2.05(1H, m), 2.42(3H, s), 3.98(2H, d, J = 6.6 Hz), 6.81(1H, s), 7.44-7.52(3H, m), 7.55-7.61(2H, m), 7.85(1H, s), 8.01(1H, s), 8.25(1H, d, J = 8.6 Hz)
6	δ 0.96(3H, t, J = 7.6 Hz), 1.29(3H, d, J = 6.1 Hz), 1.58-1.73(2H, m), 2.42(3H, s), 4.83-4.92(1H, m), 6.72(1H, s), 7.42-7.61(5H, m), 7.79(1H, s), 8.01(1H, s), 8.26(1H, d, J = 8.5 Hz)
7	δ 1.53(9H, s), 2.41(3H, s), 6.66(1H, s), 7.40-7.59(5H, m), 7.80(1H, s), 7.98(1H, d, J = 1.7 Hz), 8.23(1H, d, J = 8.8 Hz)
8	δ 0.98(9H, s), 2.41(3H, s), 3.89(2H, s), 6.94(1H, s), 7.41-7.50(3H, m), 7.54-7.57(1H, m), 7.62(1H, d, J = 8.1 Hz), 7.86(1H, s), 8.02(1H, s), 8.24(1H, d, J = 8.8 Hz)
9	δ 0.97(9H, s), 1.62(2H, t, J = 7.6 Hz), 2.41(3H, s), 4.25(2H, t, J = 7.6 Hz), 6.79(1H, br), 7.42-7.51(3H, m), 7.54-7.57(1H, m), 7.61(1H, d), 7.82(1H, s), 7.99(1H, s), 8.24(1H, d, J = 8.5 Hz)
10	δ 0.90(3H, t, J = 7.3 Hz), 0.91(3H, t, J = 7.3 Hz), 1.26-1.41(8H, m), 1.55-1.65(1H, m), 2.40(3H, s), 4.10(2H, t, J = 5.4 Hz), 7.01(1H, s), 7.40-7.50(3H, m), 7.55(1H, d, J = 7.8 Hz), 7.62(1H, d, J = 7.8 Hz), 7.91(1H, s), 8.01 (1H, s), 8.21(1H, d, J = 8.5 Hz)
11	δ 2.42(3H, s), 4.55(1H, dd, J = 1.7 Hz, 6.3 Hz), 4.83(1H, dd, J = 1.7 Hz, 13.9 Hz), 7.29(1H, dd, J = 6.3 Hz, 13.9 Hz), 7.42-7.50(3H, m), 7.61-7.63(1H, m), 7.77(1H, d, J = 7.8 Hz), 8.08(1H, s), 8.15(1H, d, J = 7.8 Hz), 8.30 (1H, s), 8.92(1H, br-s)
12	δ 2.42(3H, s), 4.68-4.70(2H, m), 5.27-5.31(1H, m), 5.35-5.41(1H, m), 5.93-6.03(1H, m), 6.83(1H, br), 7.44-7.52(3H, m), 7.55-7.63(2H, m), 7.79(1H, br), 8.00(1H, s), 8.26(1H, d, J = 8.8 Hz)
13	δ 0.82(3H, d, J = 7.1 Hz), 0.84-0.99(7H, m), 1.02-1.12(2H, m), 1.36-1.42(1H, m), 1.50-1.59(1H, m), 1.68-1.72(2H, m), 1.94-1.99(1H, m), 2.11(1H, d, J = 1.7 Hz), 2.42(3H, s), 4.65-4.72(1H, m), 6.74(1H, s), 7.42-7.62(5H, m), 7.80(1H, s), 8.02(1H, s), 8.25(1H, d, J = 8.5 Hz)
14	δ 2.38(3H, s), 5.19(2H, s), 7.19(1H, s), 7.32-7.61(10H, m), 7.91(1H, s), 8.00(1H, s), 8.18(1H, d, J = 8.5 Hz)
16	δ 2.34 (3H, s), 5.27(2H, s), 6.96 (1H, br-s), 7.40-7.58 (6H, m), 7.63-7.69 (3H, m), 7.79 (1H, s), 8.00 (1H, s), 8.25 (1H, d, J = 8.8 Hz)
17	δ 2.33(3H, s), 3.34(3H, s), 3.57-3.61(2H, m), 4.26-4.32(2H, m), 7.13(1H, s), 7.32-7.42(3H, m), 7.46-7.53(2H, m), 7.83(1H, s), 7.91(1H, d, J = 1.7 Hz), 8.13(1H, d, J = 8.5 Hz)
18	δ 2.42(3H, s), 5.83(2H, s), 7.16(1H, br-s), 7.43-7.52(3H, m), 7.61(1H, d, J = 8.1 Hz), 7.68(1H, d, J = 8.1 Hz), 7.82(1H, s), 8.03(1H, s), 8.25(1H, d, J = 8.5 Hz)
18	δ 2.42(3H, s), 5.83(2H, s), 7.16(1H, br-s), 7.43-7.52(3H, m), 7.61(1H, d, J = 8.1 Hz), 7.68(1H, d, J = 8.1 Hz), 7.82(1H, s), 8.03(1H, s), 8.25(1H, d, J = 8.5 Hz)
19	δ 2.40(3H, s), 3.74(2H, t, J = 5.6 Hz), 4.44(2H, t, J = 5.6 Hz), 7.19(1H, s), 7.42-7.50(3H, m), 7.55-7.58(1H, m), 7.63(1H, d, J = 7.6 Hz), 7.88(1H, s), 8.01(1H, s), 8.22(1H, d, J = 8.8 Hz)
20	δ 2.40(3H, s), 4.83(2H, s), 7.42-7.49(3H, m), 7.58-7.61(1H, m), 7.67-7.69(2H, m), 7.98(1H, s), 8.06(1H, s), 8.19(1H, d, J = 8.5 Hz)
21	δ 2.43(3H, s), 6.90(1H, s), 7.22(1H, br-s), 7.47-7.54(3H, m), 7.64-7.68(2H, m), 7.78(1H, s), 8.06(1H, s), 8.26(1H, d, J = 8.8 Hz)
22	δ 2.01(6H, s), 2.42(3H, s), 6.95(1H, br), 7.44-7.52(3H, m), 7.57-7.62(2H, m), 7.80(1H, s), 8.02(1H, s), 8.24(1H, d, J = 8.5 Hz)
23	δ 2.41(3H, s), 7.23-7.29(1H, m), 7.40-7.55(7H, m), 7.61-7.64(1H, m), 7.72(1H, d, J = 8.3 Hz), 7.78(1H, s), 8.07(1H, s), 8.26(1H, d, J = 8.8 Hz)
24	δ 2.36(3H, s), 2.40(3H, s), 7.05-7.09(2H, m), 7.15(1H, s), 7.20(2H, d, J = 8.1 Hz), 7.47-7.52 (3H, m), 7.60-7.63(1H, m), 7.66-7.68(1H, m), 7.79(1H, s), 8.07(1H, s), 8.25(1H, d, J = 8.8 Hz)
25	δ 2.41(3H, s), 7.12-7.17(2H, m), 7.32-7.38(2H, m), 7.42-7.48(3H, m), 7.64(1H, d, J = 7.8 Hz), 7.82(1H, d, J = 7.8 Hz), 7.99(1H, d, J = 8.5 Hz), 8.06(1H, d, J = 8.5 Hz), 8.51(1H, s), 9.52(1H, s)
59	δ 2.32(6H, s), 3.79(3H, s), 6.92(1H, br-s), 7.34(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.52-7.62(3H, m), 8.00(1H, s)
60	δ 1.33(3H, t, J = 7.1 Hz), 2.33(6H, s), 4.24(2H, q, J = 7.1 Hz), 6.80(1H, s), 7.35(2H, s), 7.44(1H, t, J = 7.8 Hz), 7.46(1H, s), 7.52-7.61(2H, m), 8.02(1H, s)
61	δ 0.99(3H, t, J = 7.3 Hz), 1.71(2H, m), 2.34(6H, s), 4.14(2H, t, J = 6.9 Hz), 6.79(1H, s), 7.35(2H, s), 7.41-7.47(2H, m), 7.59-7.61(2H, m), 8.02(1H, s)
62	δ 1.31(6H, d, J = 6.3 Hz), 2.33(6H, s), 5.03(1H, septet, J = 6.3 Hz), 6.74(1H, s), 7.35(2H, s), 7.43(1H, t, J = 8.1 Hz), 7.52(1H, s), 7.56-7.61(2H, m), 8.03(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
63	δ 0.96(3H, t, J = 7.3 Hz), 1.38-1.48(2H, m), 1.61-1.71(2H, m), 2.34(6H, s), 4.19(2H, t, J = 6.9 Hz), 6.76(1H, s), 7.35(2H, s), 7.42-7.46(2H, m), 7.58-7.61(2H, m), 8.02(1H, s)
64	δ 0.98(6H, d, J = 6.8 Hz), 1.94-2.04(1H, m), 2.34(6H, s), 3.97(2H, d, J = 6.6 Hz), 6.79(1H, s), 7.35(2H, s), 7.42-7.47(2H, m), 7.59-7.61(2H, m), 8.02(1H, s)
66	δ 1.53(9H, s), 2.34(6H, s), 6.62(1H, s), 7.35(2H, s), 7.38-7.45(2H, m), 7.51-7.60(2H, m), 8.02(1H, s)
67	δ 0.99(9H, s), 2.34(6H, s), 3.90(2H, s), 6.79(1H, s), 7.35(2H, s), 7.43(1H, br-s), 7.46(1H, t, J = 8.1 Hz), 7.59-7.63(2H, m), 8.03(1H, s)
68	δ 0.95(3H, d, J = 6.8 Hz), 0.96(3H, d, J = 6.8 Hz), 1.24(3H, d, J = 6.3 Hz), 1.81-1.89(1H, m), 2.34(6H, s), 4.75(1H, quint, J = 6.3 Hz), 6.77(1H, s), 7.35(2H, s), 7.44(1H, t, J = 8.1 Hz), 7.54-7.62(3H, m), 8.05(1H, s)
69	δ 0.94(3H, t, J = 7.3 Hz), 1.29(3H, d, J = 6.3 Hz), 1.32-1.45(2H, m), 1.46-1.58(1H, m), 1.61-1.70(1H, m), 2.35(6H, s), 4.93(1H, sext., J = 6.3 Hz), 6.73(1H, s), 7.35(2H, s), 7.42-7.47(1H, m), 7.51(1H, s), 7.56-7.62(2H, m), 8.05(1H, s)
70	δ 0.93(3H, d, J = 6.6 Hz), 0.94(3H, d, J = 6.6 Hz), 1.29(3H, d, J = 6.3 Hz), 1.31-1.37(1H, m), 1.57-1.75(2H, m), 2.34(6H, s), 4.96-5.05(1H, m), 6.70(1H, s), 7.35(2H, s), 7.42-7.46(2H, m), 7.57-7.61(2H, m), 8.04(1H, s)
71	δ 0.97(9H, s), 1.62(2H, t, J = 7.6 Hz), 2.34(6H, s), 4.25(2H, t, J = 7.6 Hz), 6.73(1H, s), 7.35(2H, s), 7.43-7.47(2H, m), 7.59-7.61(2H, m), 8.02(1H, s)
72	δ 1.27-1.34(2H, m), 1.50-1.66(4H, m), 1.74-1.83(2H, m), 2.18-2.32(1H, m), 2.34(6H, s), 4.07(2H, d, J = 7.1 Hz), 6.79(1H, s), 7.35(2H, s), 7.43-7.51(2H, m), 7.58-7.62(2H, m), 8.03(1H, s)
73	δ 1.62 (3H, d, J = 6.6 Hz), 2.33 (6H, s), 5.90 (1H, q, J = 6.6 Hz), 6.82 (1H, br-s), 7.28-7.45 (9H, m), 7.56 (1H, d, J = 8.1 Hz), 7.60 (1H, d, J = 7.6 Hz), 8.02 (1H, br-s)
74	δ 2.34 (6H, s), 3.02 (2H, t, J = 7.1 Hz), 4.42 (2H, t, J = 7.1 Hz), 6.74 (1H, br-s), 7.23-7.27 (2H, m), 7.31-7.35 (5H, m), 7.41-7.47 (2H, m), 7.58-7.62 (2H, m), 7.99 (1H, br-s)
75	δ 2.34(6H, s), 4.58(1H, dd, J = 2.0 Hz, 6.3 Hz), 4.87(1H, dd, J = 2.0 Hz, 13.9 Hz), 7.00(1H, s), 7.25(1H, dd, J = 6.3 Hz, 13.9 Hz), 7.35(2H, s), 7.47(1H, t, J = 7.8 Hz), 7.55(1H, s), 7.63-7.65(2H, m), 8.03(1H, s)
76	δ 2.34(6H, s), 4.68-4.70(2H, m), 5.26-5.31(1H, m), 5.35-5.41(1H, m), 5.92-6.02(1H, m), 6.84(1H, s), 7.35(2H, s), 7.42-7.47(2H, m), 7.60-7.62(2H, m), 8.02(1H, s)
77	δ 2.33(6H, s), 2.53(1H, t, J = 1.4 Hz), 4.79(2H, d, J = 1.4 Hz), 6.97(1H, br-s), 7.35(2H, s), 7.44(1H, t, J = 8.1 Hz), 7.51(1H, s), 7.59-7.63(2H, m), 8.02(1H, s)
78	δ 1.60-1.70 (1H, m), 1.78-1.86 (1H, m), 2.07-2.18 (2H, m), 2.33 (6H, s), 2.35-2.43 (2H, m), 5.00-5.08 (1H, m), 6.80 (1H, s), 7.35 (2H, s), 7.41-7.46 (1H, m), 7.53-7.62 (3H, m), 8.03 (1H, s)
79	δ 1.68-1.80(6H, m), 1.86-1.94(2H, m), 2.34(6H, s), 5.20-5.23(1H, m), 6.72(1H, s), 7.35(2H, s), 7.42-7.62(4H, m), 8.04(1H, s)
81	δ 2.32(6H, s), 5.22(2H, s), 6.87(1H, s), 7.34(2H, s), 7.36-7.45(7H, m), 7.57-7.61(2H, m), 8.01(1H, s)
82	δ 2.33 (9H, s), 5.18 (2H, s), 6.83 (1H, br-s), 7.14-7.20 (3H, m), 7.31 (1H, d, J = 7.8 Hz), 7.35 (2H, s), 7.44 (2H, t, J = 7.8 Hz), 7.52-7.62 (2H, m), 8.01 (1H, br-s)
83	δ 2.34 (6H, s), 5.28 (2H, s), 6.90 (1H, br-s), 7.35 (2H, s), 7.43-7.54 (4H, m), 7.61-7.66 (4H, m), 8.01 (1H, s)
84	δ 2.34 (6H, s), 5.24 (2H, s), 6.92 (1H, br-s), 7.35-7.52 (4H, m), 7.63-7.81 (6H, m), 8.02 (1H, s)
85	δ 2.34 (6H, s), 5.27 (2H, s), 6.97 (1H, br-s), 7.35 (2H, s), 7.45-7.52 (4H, m), 7.61-7.69 (4H, m), 8.01 (1H, s)
89	δ 2.34(6H, s), 5.34(2H, s), 6.90(1H, br), 7.28-7.30(3H, m), 7.35(2H, s), 7.39-7.49(3H, m), 7.59-7.64(2H, m), 8.04(1H, m)
90	δ 2.33(6H, s), 5.18(2H, s), 6.92(1H, s), 7.22-7.34(5H, m), 7.40-7.47(3H, m), 7.59-7.63(2H, m), 8.02(1H, s)
91	δ 2.33(6H, s), 5.18(2H, s), 6.86(1H, s), 7.29-7.38(6H, m), 7.43-7.47(2H, m), 7.60-7.62(2H, m), 8.01(1H, s)
92	δ 2.34 (6H, s), 5.32 (2H, s), 6.92 (1H, br-s), 7.36 (2H, s), 7.42 (1H, s), 7.48 (1H, t, J = 7.8 Hz), 7.58 (2H, d, J = 9.0 Hz), 7.62-7.66 (2H, m), 8.01 (1H, s), 8.25 (2H, d, J = 9.0 Hz)
93	δ 2.35 (6H, s), 3.93 (3H, s), 5.28 (2H, s), 6.88 (1H, br-s), 7.36 (2H, s), 7.41 (1H, s), 7.45-7.49 (4H, m), 7.63 (2H, d, J = 6.8 Hz), 8.02 (1H, s), 8.05 (1H, d, J = 6.8 Hz)
94	δ 2.32 (6H, s), 2.62 (1H, br), 3.87 (2H, t, J = 4.4 Hz), 4.29-4.32 (2H, m), 7.26 (1H, s), 7.34 (2H, s), 7.42 (1H, t, J = 8.1 Hz), 7.54-7.61 (2H, m), 7.77 (1H, s), 8.00 (1H, s)
95	δ 2.31(6H, s), 3.41(3H, s), 3.64-3.66(2H, m), 4.32-4.35(2H, m), 7.14(1H, s), 7.34(2H, s), 7.40(1H, t, J = 7.8 Hz), 7.55-7.60(2H, m), 7.67(1H, s), 8.00(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
96	δ 1.23(3H, t, J = 6.8 Hz), 2.29(6H, s), 3.56(2H, q, J = 6.8 Hz), 3.67-3.70(2H, m), 4.31-4.34(2H, m), 7.26(1H, s), 7.33(2H, s), 7.38-7.40(1H, m), 7.52-7.60(2H, m), 7.83(1H, s), 8.00(1H, s)
97	δ 1.18(6H, d, J = 6.1 Hz), 2.29(6H, s), 3.63-3.69(3H, m), 4.30-4.32(2H, m), 7.26(1H, s), 7.33(2H, s), 7.38(1H, t, J = 7.8 Hz), 7.56-7.60(2H, m), 7.82(1H, s), 8.00(1H, s)
98	δ 2.28 (6H, s), 3.70-3.73 (2H, m), 4.33-4.36 (2H, m), 4.57 (2H, s), 7.23-7.39 (9H, m), 7.53 (1H, d, J = 7.8 Hz), 7.58 (1H, d, J = 7.8 Hz), 7.87 (1H, s), 7.99 (1H, s)
99	δ 1.20 (3H, t, J = 8.1 Hz), 1.95-2.00 (2H, m), 2.35 (6H, s), 3.47-3.57 (4H, m), 4.30 (2H, t, J = 6.6 Hz), 6.78 (1H, s), 7.35 (2H, s), 7.46 (2H, t, J = 7.8 Hz), 7.61 (2H, d, J = 7.8 Hz), 8.02 (1H, s)
100	δ 1.30(3H, t, J = 7.3 Hz), 2.34(6H, s), 4.26(2H, q, J = 7.3 Hz), 4.72(2H, s), 7.35(2H, s), 7.36-7.40(1H, m), 7.52-7.60(3H, m), 7.77-7.79(1H, m), 7.90(1H, br-s)
101	δ 1.56(3H, d, J = 7.3 Hz), 2.33(6H, s), 3.79(3H, s), 5.18(1H, q, J = 7.3 Hz), 7.21(1H, br), 7.35(2H, s), 7.41(1H, t, J = 7.8 Hz), 7.55-7.62(3H, m), 7.98(1H, s)
102	δ 1.29(3H, t, J = 6.8 Hz), 1.55(3H, d, J = 6.8 Hz), 2.34(6H, s), 4.23(2H, q, J = 6.8 Hz), 5.16(1H, q, J = 6.8 Hz), 7.24(1H, br), 7.35(2H, s), 7.41(1H, t, J = 7.8 Hz), 7.55-7.62(3H, m), 7.96(1H, s)
103	δ 2.21(3H, s), 2.34(6H, s), 2.84(2H, t, J = 6.1 Hz), 4.46(2H, t, J = 6.1 Hz), 6.91(1H, br-s), 7.35(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.52-7.70(3H, m), 8.01(1H, s)
104	δ 2.10(3H, s), 2.34(6H, s), 4.33-4.42(4H, m), 6.97(1H, br-s), 7.35(2H, s), 7.45(1H, t, J = 7.8 Hz), 7.57-7.64(3H, m), 8.01(1H, s)
106	δ 2.33(6H, s), 2.78(2H, t, J = 6.3 Hz), 4.40(2H, t, J = 6.3 Hz), 7.12(1H, br), 7.35(2H, s), 7.45(1H, t, J = 7.8 Hz), 7.60-7.65(3H, m), 8.01(1H, s)
108	δ 2.17(3H, s), 2.34(6H, s), 2.80(2H, t, J = 6.6 Hz), 4.37(2H, t, J = 6.6 Hz), 6.84(1H, br-s), 7.35(2H, s), 7.43-7.52(2H, m), 7.58-7.63(2H, m), 8.02(1H, s)
109	δ 1.25-1.31(3H, m), 2.33(6H, s), 2.57-2.64(2H, m), 2.81-2.85(2H, m), 4.32-4.38(2H, m), 6.92(1H, s), 7.35(2H, s), 7.42-7.4 9(1H, m), 7.58-7.63(3H, m), 8.03(1H, s)
110	δ 1.28(6H, d, J = 6.6 Hz), 2.34(6H, s), 2.84(2H, t, J = 7.1 Hz), 2.94-3.04(1H, m), 4.34(2H, t, J = 7.1 Hz), 6.88(1H, s), 7.35(2H, s), 7.42-7.49(1H, m), 7.52-7.64(3H, m), 8.02(1H, s)
111	δ 1.40(3H, d, J = 6.1 Hz), 2.17(3H, s), 2.34(6H, s), 2.67(1H, dd, J = 6.1 Hz, 13.7 Hz), 2.77(1H, dd, J = 6.1 Hz, 13.7 Hz), 5.08(1H, sextett., J = 6.1 Hz), 6.80(1H, s), 7.35(2H, s), 7.45(1H, t, J = 7.8 Hz), 7.52(1H, s), 7.57-7.63(2H, m), 8.04(1H, s)
112	δ 1.24-1.37 (3H, m), 2.35 (6H, s), 2.26-2.31 (2H, m), 2.98-3.06 (2H, m), 4.67-4.76 (2H, m), 7.35 (3H, s), 7.45 (2H, t, J = 7.8 Hz), 7.55-7.74 (2H, m), 8.08 (1H, br-s)
113	δ 1.36-1.43 (3H, m), 2.35 (6H, s), 3.04-3.10 (2H, m), 3.37 (2H, t, J = 5.9 Hz), 4.68-4.73 (2H, m), 7.00 (1H, br-s), 7.35 (2H, s), 7.46 (2H, t, J = 7.8 Hz), 7.55-7.70 (2H, m), 8.02-8.07 (1H, m)
116	δ 2.35(6H, s), 4.45(2H, dt, J = 28.3 Hz, 4.0 Hz), 4.66(2H, dt, J = 47.3 Hz, 4.0 Hz), 6.88(1H, br-s), 7.36(2H, s), 7.46-7.50(2H, m), 7.59-7.65(2H, m), 8.02(1H, s)
117	δ 2.34(6H, s), 4.38(2H, dt, J = 3.9 Hz, 13.6 Hz), 6.00(1H, tt, J = 3.9 Hz, 47.3 Hz), 7.05(1H, br-s), 7.35(2H, s), 7.47(1H, t, J = 7.8 Hz), 7.57-7.66(3H, m), 8.01(1H, s)
118	δ 2.33(6H, s), 4.57(2H, q, J = 8.3 Hz), 7.09(1H, br), 7.35(2H, s), 7.45-7.50(2H, m), 7.61-7.66(2H, m), 8.01(1H, s)
119	δ 2.35(6H, s), 4.61-4.75(4H, m), 5.18-5.31(1H, m), 6.98(1H, br-s), 7.36(2H, s), 7.45-7.52(2H, m), 7.58-7.66(2H, m), 8.03(1H, s)
120	δ 2.35(6H, s), 3.75-3.83(2H, m), 4.46-4.80(2H, m), 5.19-5.24(1H, m), 6.97(1H, br-s), 7.36(2H, s), 7.36-7.48(2H, m), 7.60-7.66(2H, m), 8.03(1H, s)
121	(DMSO-d_6) δ 1.48 (3H, d, J = 6.6 Hz), 2.35 (6H, s), 5.35 (1H, septet, J = 6.6 Hz), 7.33 (2H, s), 7.42 (1H, t, J = 7.8 Hz), 7.68 (1H, d, J = 7.8 Hz), 7.76 (1H, d, J = 7.8 Hz), 8.11 (1H, s), 8.76 (1H, s), 9.26 (1H, s)
122	($CDCl_3$ + DMSO-d_6) δ 2.35(6H, s), 5.87(1H, septet, J = 6.3 Hz), 7.33(2H, s), 7.44(1H, t, J = 8.1 Hz), 7.71-7.78(2H, m), 8.17(1H, s), 8.97(1H, s), 10.19(1H, s)
123	δ 2.34(6H, s), 2.48-2.59(2H, m), 4.42(2H, t, J = 6.3 Hz), 6.93(1H, br-s), 7.35(2H, s), 7.46(1H, t, J = 7.8 Hz), 7.57-7.64(3H, m), 8.01(1H, br-s)
124	δ 2.35(6H, s), 4.67(2H, t, J = 13.2 Hz), 6.98(1H, br-s), 7.29(2H, s), 7.36(1H, s), 7.50(1H, t, J = 7.8 Hz), 7.65-7.67(2H, m), 8.01(1H, s)
125	δ 1.51(3H, d, J = 6.4 Hz), 2.35(6H, s), 5.49-5.50(1H, m), 6.90(1H, br-s), 7.36(2H, s), 7.44(1H, br-s), 7.50(1H, t, J = 7.8 Hz), 7.62-7.67(2H, m), 8.02(1H, s)
126	δ 1.95-2.05(2H, m), 2.22-2.27(2H, m), 2.35(6H, s), 4.26(2H, t, J = 6.4 Hz), 6.81(1H, s), 7.36(2H, s), 7.45-7.49(2H, m), 7.61-7.63(2H, m), 8.02(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
127	δ 2.35(6H, s), 2.61-2.65(1H, m), 2.9-3.1(1H, m), 5.2-5.3(1H, m), 7.01(1H, br-s), 7.36(2H, s), 7.45-7.52(2H, m), 7.62-7.68(2H, m), 8.01(1H, s)
128	δ 2.34(6H, s), 5.84(2H, s), 7.03(1H, s), 7.36(2H, s), 7.44-7.52(2H, m), 7.65-7.67(2H, m), 8.04(1H, s)
129	δ 2.36(6H, s), 7.33(2H, s), 7.40-7.46(1H, m), 7.65(1H, d, J = 7.8 Hz), 7.90(1H, d, J = 7.8 Hz), 7.95(1H, d, J = 1.7 Hz), 8.55(1H, s), 9.07(1H, s)
130	δ 2.35(6H, s), 3.74-3.77(2H, m), 4.44-4.47(2H, m), 6.87(1H, br), 7.36(2H, s), 7.43-7.52(2H, m), 7.59-7.64(2H, m), 8.02(1H, s)
131	δ 2.32(6H, s), 4.53(2H, d, J = 5.9 Hz), 5.90(1H, t, J = 5.9 Hz), 7.11(1H, br-s), 7.35(2H, s), 7.45(1H, t, J = 8.1 Hz), 7.60-7.64(3H, m), 8.01(1H, br-s)
132	δ 2.33(6H, s), 4.84(2H, s), 7.29(1H, br), 7.35(2H, s), 7.47(1H, t, J = 7.8 Hz), 7.58(1H, s), 7.64-7.66(2H, m), 8.04(1H, s)
133	δ 2.35(6H, s), 6.90(1H, s), 7.17(1H, br), 7.36(2H, s), 7.42(1H, s), 7.50-7.54(1H, m), 7.66-7.71(2H, m), 8.06(1H, s)
134	δ 2.35(6H, s), 3.83(4H, d, J = 5.1 Hz), 5.22(1H, quint, J = 5.1 Hz), 6.93(1H, s), 7.36(2H, s), 7.43(1H, s), 7.48(1H, t, J = 7.8 Hz), 7.60-7.66(2H, m), 8.03(1H, s)
135	δ 2.01(6H, s), 2.35(6H, s), 6.88(1H, br), 7.36(2H, s), 7.43-7.52(2H, m), 7.58-7.65(2H, m), 8.03(1H, s)
136	δ 2.17(2H, quint, J = 6.3 Hz), 2.34(6H, s), 3.66(2H, t, J = 6.3 Hz), 4.36(2H, t, J = 6.3 Hz), 6.83(1H, s), 7.35(2H, s), 7.43-7.48(1H, m), 7.52(1H, s), 7.59-7.63(2H, m), 8.02(1H, s)
137	δ 2.35(6H, s), 3.59(2H, t, J = 5.9 Hz), 4.51(2H, t, J = 5.9 Hz), 6.86(1H, br), 7.36(2H, s), 7.43-7.52(2H, m), 7.60-7.64(2H, m), 8.02(1H, s)
138	δ 2.34(6H, s), 5.03(2H, s), 7.15(1H, br), 7.35(2H, s), 7.47-7.54(2H, m), 7.64-7.69(2H, m), 8.06(1H, s)
139	δ 2.25(2H, quint, J = 6.1 Hz), 2.34(6H, s), 3.51(2H, t, J = 6.1 Hz), 4.35(2H, t, J = 6.1 Hz), 6.83(1H, s), 7.35(2H, s), 7.46(1H, t, J = 8.1 Hz), 7.54(1H, s), 7.58-7.64(2H, m), 8.02(1H, s)
140	δ 2.34(6H, s), 3.34-3.39(2H, m), 4.42-4.47(2H, m), 6.91-6.99(1H, br), 7.35(2H, s), 7.43-7.49(1H, m), 7.56-7.64(3H, m), 8.03(1H, s)
141	(DMSO-d_6) δ 1.82(3H, s), 2.28(6H, s), 3.33(2H, q, J = 5.9 Hz), 4.11(2H, t, J = 5.9 Hz), 7.44(2H, s), 7.46(1H, d, J = 7.8 Hz), 7.62-7.69(2H, m), 8.04(1H, t, J = 5.9 Hz), 8.09(1H, s), 9.90(1H, s), 9.93(1H, s)
146	δ 2.34(6H, s), 2.36(3H, s), 7.05-7.08(2H, m), 7.17-7.20(2H, m), 7.33(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.68(1H, d, J = 7.8 Hz), 7.80(1H, d, J = 7.8 Hz), 8.17(1H, s), 8.67(1H, s), 9.29(1H, s)
147	δ 2.35(6H, s), 7.33(2H, s), 7.41-7.57(5H, m), 7.72(1H, d, J = 7.8 Hz), 7.82(1H, d, J = 7.8 Hz), 8.18(1H, s), 9.01(1H, s), 9.73(1H, s)
148	δ 2.35(6H, s), 7.13-7.18(2H, m), 7.32-7.37(4H, m), 7.41-7.45(1H, m), 7.70(1H, d, J = 7.6 Hz), 7.81(1H, d, J = 7.6 Hz), 8.16(1H, s), 9.04(1H, s), 9.69(1H, s)
149	δ 2.34(6H, s), 7.32(2H, s), 7.33-7.36(1H, m), 7.42-7.52(3H, m), 7.65(1H, d, J = 2.4 Hz), 7.70(1H, d, J = 7.8 Hz), 7.80-7.88(4H, m), 8.20(1H, s), 8.76(1H, s), 9.48(1H, s)
154	δ 2.08-2.14 (1H, m), 2.18-2.30 (1H, m), 2.35 (6H, s), 3.86-4.01 (4H, m), 5.37-5.39 (1H, m), 6.87 (1H, br-s), 7.35 (2H, s), 7.46 (2H, t, J = 7.6 Hz), 7.58-7.63 (2H, m), 8.01 (1H, s)
155	δ 2.34 (6H, s), 5.18 (2H, s), 6.38 (1H, d, J = 3.2 Hz), 6.48 (1H, d, J = 3.2 Hz), 6.83 (1H, br-s), 7.35 (2H, s), 7.43-7.47 (3H, m), 7.57-7.63 (2H, m), 8.01 (1H, s)
156	δ 2.34 (6H, s), 5.10 (2H, s), 6.48 (1H, s), 6.79 (1H, br-s), 7.35 (2H, s), 7.39-7.47 (3H, m), 7.53 (1H, s), 7.59-7.63 (2H, m), 8.01 (1H, br-s)
157	δ 1.58-1.67 (1H, m), 1.93-1.95 (2H, m), 2.01-2.09 (1H, m), 2.34 (6H, s), 3.78-3.93 (2H, m), 4.06-4.23 (2H, m), 4.31 (1H, dd, J = 3.2 Hz, 11.2 Hz), 6.95 (1H, br-s), 7.35 (2H, s), 7.45 (2H, t, J = 7.8 Hz), 7.50-7.56 (1H, m), 7.63 (1H, d, J = 7.1 Hz), 8.04 (1H, s)
158	δ 1.66-1.73 (1H, m), 2.05-2.13 (1H, m), 2.34 (6H, s), 2.60-2.70 (1H, m), 3.64-3.68 (1H, m), 3.73-3.79 (1H, m), 3.85-3.92 (2H, m), 4.09-4.15 (2H, m), 6.87 (1H, br-s), 7.35 (2H, s), 7.46 (2H, t, J = 7.8 Hz), 7.61-7.66 (2H, m), 8.01 (1H, br-s)
159	δ 2.34 (6H, s), 5.38 (2H, s), 6.83 (1H, br-s), 6.98-7.02 (1H, m), 7.16 (1H, d, J = 2.9 Hz), 7.34-7.36 (3H, m), 7.43-7.47 (2H, m), 7.59-7.63 (2H, m), 8.01 (1H, s)
160	δ 2.34 (6H, s), 5.23 (2H, s), 6.83 (1H, br-s), 7.14 (1H, d, J = 5.1 Hz), 7.33-7.37 (4H, m), 7.45 (2H, t, J = 7.8 Hz), 7.61-7.64 (2H, m), 8.02 (1H, s)
161	δ 2.32 (6H, s), 5.34 (2H, s), 7.24-7.28 (2H, m), 7.35 (2H, s), 7.39 (1H, d, J = 7.8 Hz), 7.43 (1H, d, J = 7.8 Hz), 7.55 (1H, s), 7.61 (2H, t, J = 7.8 Hz), 7.73 (1H, dt, J = 1.7 Hz, 7.8 Hz), 8.03 (1H, s), 8.61 (1H, br-s)
162	δ 2.36 (6H, s), 5.36 (2H, s), 6.37 (1H, br-s), 6.70 (1H, s), 7.31-7.39 (4H, m), 7.73-7.82 (4H, m), 8.58-8.61 (1H, m), 8.72 (1H, d, J = 2.0 Hz)
163	δ 2.34 (6H, s), 5.22 (2H, s), 6.89 (1H, br-s), 7.35-7.49 (5H, m), 7.62 (2H, d, J = 7.3 Hz), 7.72-7.77 (1H, m), 8.00 (1H, br-s), 8.45 (1H, d, J = 2.4 Hz)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
164	δ1.23 (6H, d, J = 6.8 Hz), 2.34 (3H, s), 3.18 (1H, septet, J = 6.8 Hz), 3.81 (3H, s), 6.84 (1H, s), 7.36 (1H, s), 7.42 (1H, s), 7.46 (1H, t, J = 7.8 Hz), 7.56-7.63 (3H, m), 8.01 (1H, s)
165	δ1.22 (6H, d, J = 6.8 Hz), 1.33 (3H, t, J = 7.3 Hz), 2.33 (3H, s), 3.17 (1H, septet, J = 6.8 Hz), 4.24 (2H, q, J = 7.3 Hz), 6.80 (1H, s), 7.35 (1H, s), 7.41 (1H, s), 7.44 (1H, t, J = 7.8 Hz), 7.58-7.62 (3H, m), 8.02 (1H, s)
166	δ 1.32(6H, d, J = 6.1 Hz), 5.03(1H, septet, J = 6.1 Hz), 6.71(1H, s), 7.40-7.44(1H, m), 7.54(1H, d, J = 2.0 Hz), 7.56(1H, d, J = 2.0 Hz), 7.60(2H, d, J = 8.8 Hz), 7.80(2H, d, J = 8.8 Hz), 7.98(1H, s), 8.03(1H, s)
167	δ1.32 (6H, d, J = 6.1 Hz), 2.53 (3H, d, J = 8.8 Hz), 5.04 (1H, septet, J = 6.1 Hz), 6.71 (1H, br s), 7.41-7.65 (6H, m), 7.95-7.97 (2H, m)
168	δ 1.32(6H, d, J = 6.1 Hz), 1.33(3H, t, J = 7.6 Hz), 2.74(2H, q, J = 7.6 Hz), 5.04(1H, septet, J = 6.1 Hz), 6.70(1H, s), 7.43-7.56(4H, m), 7.60(1H, d, J = 8.1 Hz), 7.86(1H, s), 8.00(1H, s), 8.27(1H, d, J = 8.5 Hz)
169	δ 1.02(3H, t, J = 7.3 Hz), 1.32(6H, d, J = 6.3 Hz), 1.67-1.77(2H, m), 2.70(2H, t, J = 7.3 Hz), 5.03(1H, septet, J = 6.3 Hz), 6.72(1H, s), 7.43-7.60(5H, m), 7.89(1H, s), 8.03(1H, s), 8.29(1H, d, J = 8.5 Hz)
170	δ1.32 (6H, d, J = 6.4 Hz), 3.89 (3H, s), 5.04 (1H, septet, J = 6.4 Hz), 6.73 (1H, br s), 7.05-7.08 (1H, m), 7.42-7.46 (1H, m), 7.51-7.58 (3H, m), 7.80 (1H, s), 8.00 (1H, s), 8.15 (1H, s)
171	δ1.32 (6H, d, J = 6.4 Hz), 5.03 (1H, septet, J = 6.4 Hz), 6.75 (1H, s), 7.28-7.47 (2H, m), 7.52-7.58 (2H, m), 7.72-7.75 (1H, m), 7.92 (1H, s), 8.00 (1H, s), 8.37 (1H, s)
172	δ1.31 (6H, d, J = 6.3 Hz), 2.30 (3H, s), 2.47 (3H, d, J = 5.9 Hz), 5.01-5.09 (1H, m), 6.72 (1H, br-s), 7.40-7.47 (2H, m), 7.56-7.60 (2H, m), 7.77 (1H, d, J = 8.6 Hz), 7.83 (1H, br-s), 8.00 (1H, br-s)
173	δ 1.31 (6H, d, J = 6.1 Hz), 2.35 (3H, s), 2.52 (3H, d, J = 9.0 Hz), 4.99-5.09 (1H, m), 6.71 (1H, br-s), 7.30 (1H, br-s), 7.44 (1H, t, J = 7.8 Hz), 7.52-7.57(1H, m), 7.61 (1H, d, J = 7.8 Hz), 7.72 (1H, s), 7.98 (1H, s), 8.06 (1H, s)
174	δ 1.23(6H, t, J = 7.6 Hz), 1.32(6H, d, J = 6.1 Hz), 2.69(4H, q, J = 7.6 Hz), 5.03(1H, septet, J = 6.1 Hz), 6.70(1H, s), 7.38(2H, s), 7.42-7.47(2H, m), 7.58-7.62(2H, m), 8.01(1H, s)
175	δ 1.22(3H, t, J = 7.6 Hz), 1.31(6H, d, J = 6.3 Hz), 2.34(3H, s), 2.69(2H, q, J = 7.6 Hz), 5.03(1H, septet, J = 6.3 Hz), 6.70(1H, s), 7.37(2H, s), 7.42-7.47(2H, m), 7.58-7. 61(2H, m), 8.02(1H, s)
176	δ1.22(6H, d, J = 6.8 Hz), 1.31(6H, d, J = 6.3 Hz), 2.33(3H, s), 3.17 (1H, septet, J = 6.8 Hz), 5.03 (1H, septet, J = 6.3 Hz), 6.76 (1H, s), 7.35 (1H, s), 7.41 (1H, s), 7.44 (1H, t, J = 8.1 Hz), 7.56-7.62 (3H, m), 8.03 (1H, s)
177	δ 1.32(6H, d, J = 6.1 Hz), 2.35(3H, s), 3.85(3H, s), 5.04(1H, septet, J = 6.1 Hz), 6.67(1H, s), 6.96(1H, s), 7.13(1H, s), 7.44(1H, t, J = 8.1 Hz), 7.59-7.65(3H, m), 7.96(1H, s)
178	δ 1.30(6H, d, J = 6.1 Hz), 2.42(3H, s), 5.00(1H, septet, J = 6.1 Hz), 6.63(1H, s), 7.27-7.41(8H, m), 7.45(1H, s), 7.53(1H, s), 7.58(1H, d, J = 7.8 Hz), 7.74(1H, s)
179	δ1.31 (6H, d, J = 6.1 Hz), 2.61 (3H, d, J = 6.3 Hz), 5.05 (1H, septet, J = 6.1 Hz), 6.76 (1H, br s), 7.45-7.58 (3H, m), 7.70 (1H, d, J = 8.1 Hz), 7.96 (1H, t, J = 1.8 Hz), 8.56-8.58 (1H, m), 8.70 (1H, br s)
180	δ 1.24(3H, t, J = 7.6 Hz), 1.31(6H, d, J = 6.3 Hz), 2.75(2H, q, J = 7.6 Hz), 5.03(1H, septet, J = 6.3 Hz), 6.74(1H, s), 7.42-7.47(2H, m), 7.57-7.67(4H, m), 8.02(1H, s)
181	δ 0.93(3H, t, J = 7.3 Hz), 1.32(6H, d, J = 6.1 Hz), 1.63-1.71(2H, m), 2.70(2H, t, J = 7.6 Hz), 5.04(1H, septet, J = 6.1 Hz), 6.72(1H, s), 7.44-7.48(2H, m), 7.57-7.63(3H, m), 7.68(1H, s), 8.02(1H, s)
182	δ1.32 (6H, d, J = 6.4 Hz), 3.92 (3H, s), 5.06 (1H, septet, J = 6.4 Hz), 6.73 (1H, s), 7.46-7.50 (1H, m), 7.55-7.60 (2H, m), 7.69 (1H, d, J = 7.8 Hz), 7.96 (1H, s), 8.48 (1H, d, J = 1.2 Hz), 8.58 (1H, s)
183	δ1.31 (6H, d, J = 6.2 Hz), 2.30 (3H, s), 2.44 (3H, d, J = 6.4 Hz), 5.01-5.05 (1H, m), 6.72 (1H, br-s), 7.44-7.48 (2H, m), 7.61-7.62 (2H, m), 7.78 (1H, s), 8.03 (1H, br-s)
184	δ 1.32 (6H, d, J = 6.1 Hz), 2.35 (3H, s), 2.58 (3H, d, J = 6.8 Hz), 5.01-5.07 (1H, m), 6.68 (1H, br-s), 7.35 (1H, s), 7.46 (1H, t, J = 7.8 Hz), 7.61-7.65 (2H, m), 7.72 (1H, s), 8.01 (1H, s)
185	δ1.31 (6H, d, J = 6.4 Hz), 2.49 (3H, s), 4.77 (2H, br-s), 5.06 (1H, sept, J = 6.4 Hz), 6.73 (1H, br-s), 7.44-7.49 (1H, m), 7.55 (1H, s), 7.61-7.63 (2H, m), 7.81 (1H, s), 8.05 (1H, br-s)
186	δ1.32 (6H, d, J = 6.4 Hz), 2.61 (3H, s), 5.05 (1H, septet), 6.73 (1H, br-s), 7.44-7.48 (2H, m), 7.57-7.64 (2H, m), 7.95 (1H, br-s), 8.06 (1H, br-s)
187	δ 4.84(2H, s), 7.28(1H, br), 7.45(1H, t, J = 8.1 Hz), 7.59-7.65(4H, m), 7.81(2H, d, J = 8.5 Hz), 7.99(1H, s), 8.17(1H, s)
188	δ 2.53 (3H, d, J = 8.8 Hz), 4.85 (2H, s), 7.15 (1H, br s), 7.45-7.65 (6H, m), 8.00-8.02 (2H, m)
189	δ 1.34(3H, t, J = 7.6 Hz), 2.75(2H, q, J = 7.6 Hz), 4.85(2H, s), 7.10(1H, s), 7.47-7.52(3H, m), 7.59-7.66(2H, m), 7.87(1H, s), 8.05(1H, s), 8.27(1H, d, J = 8.8 Hz)
190	δ 1.02(3H, t, J = 7.3 Hz), 1.67-1.77(2H, m), 2.70(2H, t, J = 7.6 Hz), 4.85(2H, s), 7.10(1H, br-s), 7.44-7.52(3H, m), 7.59-7.65(2H, m), 7.88(1H, s), 8.07(1H, s), 8.30(1H, d, J = 8.5 Hz)
191	δ3.89 (3H, s), 4.85 (2H, s), 7.06 (1H, dd, J = 8.5 Hz, 2.0 Hz), 7.18 (1H, br s), 7.46-7.54 (2H, m), 7.61-7.63 (2H, m), 7.79-7.80 (1H, m), 8.01 (1H, s), 8.10 (1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
192	δ4.86(2H, s), 7.09(1H, br.), 7.43-7.79(5H, m), 8.03(1H, br.), 8.56(1H, br), 8.76(1H, d, J = 8.8 Hz)
193	δ4.86 (2H, s), 7.16 (1H, br s), 7.47-7.74 (5H, m), 7.93 (1H, s), 8.02 (1H, s), 8.23 (1H, s)
194	δ 2.30 (3H, s), 2.47 (3H, d, J = 6.0 Hz), 4.85 (2H, s), 7.12 (1H, br-s), 7.42 (1H, d, J = 9.0 Hz), 7.49 (1H, t, J = 8.1 Hz), 7.62-7.67 (2H, m), 7.78-7.81 (2H, m), 8.03 (1H, br-s)
195	δ 2.35 (3H, s), 2.52 (3H, d, J = 8.8 Hz), 4.86 (2H, s), 7.05 (1H, br-s), 7.31 (1H, s), 7.50 (1H, t, J = 7.8 Hz), 7.60-7.67 (2H, m), 7.71 (1H, s), 8.03 (1H, s), 8.07 (1H, s)
196	δ 1.23(6H, t, J = 7.6 Hz), 2.70(4H, q, J = 7.6 Hz), 4.85(2H, s), 7.03(1H, br), 7.39(3H, s), 7.50(1H, t, J = 8.1 Hz), 7.65(1H, d, J = 8.1 Hz), 7.69(1H, br-s), 8.04(1H, s)
197	δ 1.23(3H, t, J = 7.6 Hz), 2.35(3H, s), 2.69(2H, q, J = 7.6 Hz), 4.85(2H, s), 7.05(1H, br), 7.37(2H, s), 7.42(1H, s), 7.50(1H, t, J = 7.8 Hz), 7.64-7.66(2H, m), 8.04(1H, s)
198	δ1.23 (6H, d, J = 6.8 Hz), 2.34 (3H, s), 3.17 (1H, septet, J = 6.8 Hz), 4.85 (2H, s), 7.18 (1H, br-s), 7.36 (1H, s), 7.42 (1H, s), 7.49 (1H, t, J = 8.1 Hz), 7.55 (1H, s), 7.65-7.67 (2H, m), 8.05 (1H, s)
199	δ 2.36(3H, s), 3.86(3H, s), 4.85(2H, s), 6.96(1H, s), 7.01(1H, br), 7.14(1H, s), 7.49(1H, t, J = 8.1 Hz), 7.64-7.68(3H, m), 7.99(1H, s)
200	δ 2.43(3H, s), 4.83(2H, s), 6.99(1H, br), 7.33-7.42(8H, m), 7.45(1H, s), 7.54(1H, s), 7.64(1H, d, J = 6.3 Hz), 7.78(1H, s)
201	δ 2.47(3H, s), 4.86(2H, s), 7.06(1H, s), 7.11(1H, br.), 7.24-7.27(1H, m), 7.53(1H, t, J = 7.3 Hz), 7.66(2H, t, J = 7.3 Hz), 7.95(1H, s), 8.17(1H, s), 8.85(1H, s)
202	δ1.57 (3H, s), 4.86 (2H, s), 7.10 (1H, br s), 7.52 (2H, t, J = 7.8 Hz), 7.63-7.65 (1H, m), 7.72-7.74 (1H, m), 8.03(1H, br-s), 8.57-8.59 (1H, m), 8.70 (1H, br s)
203	δ 2.10 (3H, s), 4.84 (2H, s), 7.11 (1H, d, J = 8.8 Hz), 7.18-7.22 (2H, m), 7.47 (1H, t, J = 7.8 Hz), 7.61 (1H, d, J = 7.8 Hz), 7.65 (1H, d, J = 7.8 Hz), 7.80 (1H, br-s), 8.00 (1H, br-s)
204	δ1.50 (9H, s), 2.29 (3H, s), 4.85 (2H, s), 6.46 (1H, br-s), 7.20 (1H, br-s), 7.45-7.49 (2H, m), 7.50 (1H, d, J = 7.3 Hz), 7.65 (1H, d, J = 7.3 Hz), 7.88 (1H, br-s), 7.99 (1H, br-s), 8.19 (1H, d, J = 8.8 Hz)
205	δ 1.26(3H, t, J = 7.6 Hz), 2.76(2H, q, J = 7.6 Hz), 4.85(2H, s), 7.06(1H, br), 7.47-7.53(2H, m), 7.58-7.61(2H, m), 7.67-7.69(2H, m), 8.05(1H, s)
206	δ 1.25(3H, t, J = 7.3 Hz), 2.77(2H, q, J = 7.3 Hz), 4.85(2H, s), 7.06(1H, br), 7.49-7.53(2H, m), 7.62(1H, s), 7.68-7.70(2H, m), 7.74(1H, s), 8.06(1H, s)
207	δ 1.24(3H, t, J = 7.3 Hz), 2.77(2H, q, J = 7.3 Hz), 4.86(2H, s), 7.07(1H, br), 7.50-7.58(3H, m), 7.70-7.72(2H, m), 7.96(1H, s), 8.07(1H, s)
208	δ 0.93(3H, t, J = 7.3 Hz), 1.63-1.69(2H, m), 2.70(2H, t, J = 7.6 Hz), 4.85(2H, s), 7.10(1H, s), 7.45(1H, s), 7.49-7.52(1H, m), 7.53(1H, s), 7.58-7.69(3H, m), 8.04(1H, s)
209	δ 0.93(3H, t, J = 7.3 Hz), 1.61-1.70(2H, m), 2.71(2H, t, J = 7.3 Hz), 4.85(2H, s), 7.10(1H, br-s), 7.48-7.53(2H, m), 7.63(1H, s), 7.67-7.70(2H, m), 7.74(1H, d, J = 2.0 Hz), 8.05(1H, s)
210	δ 0.90(3H, t, J = 7.3 Hz), 1.28-1.38(2H, m), 1.56-1.64(2H, m), 2.73(2H, t, J = 7.8 Hz), 4.85(2H, s), 7.06(1H, br-s), 7.49-7.53(2H, m), 7.60(1H, s), 7.67-7.74(3H, m), 8.04(1H, s)
211	δ3.93 (3H, s), 4.86 (2H, s), 7.13 (1H, br s), 7.53 (1H, t, J = 8 Hz), 7.61-7.65 (2H, m), 7.71 (1H, d, J = 8 Hz), 8.04 (1H, s), 8.48 (1H, d, J = 1.2 Hz), 8.58 (1H, s)
212	δ 2.47(3H, s), 4.85(2H, s), 7.08(1H, br-s), 7.40(1H, s), 7.51(1H, t, J = 7.8 Hz), 7.63(1H, s), 7.67-7.71(3H, m), 8.03(1H, s)
213	δ4.86(2H, s), 7.06(1H, br.), 7.52(1H, t, J = 7.8 Hz), 7.67-7.71(3H, m), 7.67(2H, s), 8.05(1H, s)
214	δ 2.26 (3H, s), 2.45 (3H, d, J = 6.4 Hz), 4.86 (2H, s), 7.08 (1H, br-s), 7.49-7.53 (2H, m), 7.69-7.75 (3H, m), 8.05 (1H, br-s)
215	δ 2.35 (3H, s), 2.58 (3H, d, J = 6.6 Hz), 4.85 (2H, s), 7.08 (1H, br-s), 7.35 (1H, s), 7.51 (1H, t, J = 8.1 Hz), 7.68 (2H, d, J = 8.1 Hz), 7.73 (1H, s), 8.04 (1H, s)
216	δ 2.50 (3H, s), 4.77 (2H, br-s), 4.86 (2H, s), 7.12 (1H, br-s), 7.51-7.56 (2H, m), 7.69 (2H, d, J = 7.3 Hz), 8.84 (1H, s), 8.08 (1H, br-s)
217	δ 2.43 (3H, s), 4.86 (2H, s), 7.12 (1H, br-s), 7.51 (1H, t, J = 7.9 Hz), 7.57 (1H, br-s), 7.69 (1H, d, J = 7.9 Hz), 7.76 (1H, br-s), 7.86 (1H, br-s), 8.08 (1H, br-s)
218	δ 2.51 (3H, s), 4.86 (2H, s), 7.00 (1H, br-s), 7.50-7.55 (2H, m), 7.68-7.70 (2H, m), 7.87 (1H, br-s), 8.08 (1H, br-s)
219	δ 2.62 (3H, s), 4.86 (2H, s), 7.00 (1H, br-s), 7.47 (1H, s), 7.52 (1H, t, J = 7.8 Hz), 7.68-7.70 (2H, m), 7.89 (1H, br-s), 8.07 (1H, br-s)
220	δ 2.12 (3H, s), 4.50 (2H, br-s), 4.86 (2H, s), 7.14 (1H, br-s), 7.29 (1H, br-s), 7.51 (1H, t, J = 7.8 Hz), 7.68-7.70 (2H, m), 7.77 (1H, br-s), 8.04 (1H, br-s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
221	δ 0.90(3H, t, J = 7.3 Hz), 1.28-1.37(2H, m), 1.55-1.63(2H, m), 2.48-2.60(2H, m), 2.73(2H, t, J = 7.8 Hz), 4.43(2H, t, J = 6.3 Hz), 6.85(1H, s), 7.46-7.50(2H, m), 7.60-7.68(3H, m), 7.73(1H, d, J = 1.5 Hz), 8.00(1H, s)
222	δ1.32 (6H, d, J = 6.3 Hz), 2.39 (3H, s), 5.04 (1H, septet, J = 6.3 Hz), 6.71 (1H, s), 7.43-7.47 (2H, m), 7.57-7.64 (3H, m), 7.73 (1H, s), 8.04 (1H, s)
223	δ 1.32(6H, d, J = 6.3 Hz), 5.03(1H, septet, J = 6.3 Hz), 7.41(1H, t, J = 8.1 Hz), 7.63-7.68(1H, m), 7.67(2H, s), 7.75(1H, d, J = 7.6 Hz), 8.00(1H, s), 8.06(1H, t, J = 1.7 Hz), 8.93(1H, s)
224	(DMSO-d_6)δ 1.31(6H, d, J = 6.3 Hz), 5.03(1H, septet, J = 6.3 Hz), 7.41(1H, t, J = 8.1 Hz), 7.64(1H, d, J = 8.1 Hz), 7.79(1H, d, J = 8.1 Hz), 7.93(1H, s), 8.00(1H, s), 8.15(1H, s), 8.26(1H, s), 9.36(1H, s)
225	δ 1.31(6H, d, J = 6.3 Hz), 2.34(6H, s), 5.03(1H, septet, J = 6.3 Hz), 6.73(1H, s), 7.33(2H, s), 7.44(1H, t, J = 7.8 Hz), 7.53-7.62(3H, m), 8.05(1H, s)
226	δ 1.31(6H, d, J = 6.3 Hz), 2.33(6H, s), 5.02(1H, septet, J = 6.3 Hz), 6.75(1H, s), 7.33(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.52-7.61(3H, m), 8.04(1H, s)
227	δ 4.84(2H, s), 7.24(1H, s), 7.45(1H, t, J = 7.8 Hz), 7.59-7.62(4H, m), 7.77(2H, d, J = 8.8 Hz), 7.99(1H, s), 8.16(1H, s)
228	δ 2.39 (3H, s), 4.85 (2H, s), 7.11 (1H, br-s), 7.47-7.52 (2H, m), 7.58 (1H, s), 7.67-7.70 (2H, m), 7.73 (1H, s), 8.06 (1H, s)
229	(DMSO-d_6) δ 4.86(2H, s), 7.45(1H, t, J = 7.8 Hz), 7.72(1H, s), 7.73(1H, d, J = 7.8 Hz), 7.83-7.84(2H, m), 8.14(1H, s), 9.27(1H, s), 9.34(1H, s)
230	(DMSO-d6) δ 4.86(2H, s), 7.44(1H, t, J = 8.1 Hz), 7.67(1H, s), 7.68(1H, s), 7.71-7.74(1H, m), 7.85(1H, d, J = 7.3 Hz), 8.15(1H, s), 9.31(1H, s), 9.41(1H, br-s)
231	(DMSO-d_6) δ 4.96(2H, s), 7.51(1H, t, J = 7.8 Hz), 7.65-7.73(2H, m), 8.13(1H, s), 8.15(1H, s), 8.49(1H, s), 10.41(1H, s), 10.58(1H, s)
232	(DMSO-d_6) δ 4.86(2H, s), 7.45(1H, t, J = 7.8 Hz), 7.70(1H, d, J = 7.8 Hz), 7.88(1H, d, J = 7.8 Hz), 7.94(1H, s), 8.08(1H, s), 8.16(1H, s), 9.33(1H, s), 9.42(1H, s)
233	δ 2.34(6H, s), 4.85(2H, s), 7.10(1H, br), 7.34(2H, s), 7.47-7.51(2H, m), 7.65-7.68(2H, m), 8.06(1H, s)
234	δ 2.34(6H, s), 4.85(2H, s), 7.10(1H, br), 7.35(2H, s), 7.47-7.52(2H, m), 7.65-7.68(2H, m), 8.05(1H, s)
235	δ 4.84(2H, s), 7.17(1H, br-s), 7.49(1H, t, J = 7.8 Hz), 7.63(1H, d, J = 7.8 Hz), 7.67(1H, d, J = 7.8 Hz), 7.94(1H, s), 8.07(1H, s)
236	δ 4.85(2H, s), 7.14(1H, s), 7.51(1H, t, J = 7.8 Hz), 7.68-7.73(2H, m), 7.83(1H, s), 7.86(2H, s), 8.07(1H, s)
237	δ 2.48-2.60(2H, m), 4.43(2H, t, J = 6.3 Hz), 6.90(1H, s), 7.48(1H, t, J = 7.8 Hz), 7.63-7.69(2H, m), 7.86(3H, s), 8.03(1H, s)
238	(DMSO-d_6) δ 2.50-2.61(2H, m), 4.41(2H, t, J = 6.3 Hz), 7.43(1H, t, J = 7.8 Hz), 7.70(1H, d, J = 7.8 Hz), 7.71(1H, s), 7.80-7.84(2H, m), 8.06(1H, s), 8.82(1H, s), 9.26(1H, s)
239	δ 1.34(3H, t, J = 7.3 Hz), 4.26(2H, q, J = 7.3 Hz), 6.77(1H, br-s), 7.46-7.53(2H, m), 7.70(1H, brd, J = 7.3 Hz), 7.86-7.94(3H, m), 8.39(1H, s), 8.71(1H, d, J = 8.8 Hz)
240	δ 1.32(6H, d, J = 6.3 Hz), 5.06(1H, septet, J = 6.3 Hz), 6.74(1H, s), 7.45-7.52(2H, m), 7.70(1H, d, J = 7.3 Hz), 7.86-7.94(3H, m), 8.40(1H, s), 8.71(1H, d, J = 8.8 Hz)
241	δ 4.58(1H, dd, J = 2.0 Hz, 5.8 Hz), 4.85(1H, dd, J = 2.0 Hz, 4.2 Hz), 7.06(1H, br-s), 7.30(1H, d, J = 6.4 Hz), 7.49-7.57(2H, m), 7.74(1H, d, J = 7.8 Hz), 7.87(1H, d, J = 7.8 Hz), 7.91(1H, s), 7.99(1H, s), 8.40(1H, s), 8.71(1H, d, J = 8.8 Hz)
242	δ1.62-1.70(2H, m), 1.71-1.87(4H, m), 1.89-1.96(2H, m), 5.22-5.26(1H, m), 6.72(1H, s), 7.45-7.51(2H, m), 7.70(1H, brd, J = 7.3 Hz), 7.86-7.93(3H, m), 8.34(1H, s), 8.70(1H, d, J = 8.8 Hz)
243	δ 3.76(2H, t, J = 5.4 Hz), 4.47(2H, t, J = 5.4 Hz), 6.97(1H, br-s), 7.47-7.56(2H, m), 7.69(1H, d, J = 7.8 Hz), 7.86-7.91(2H, m), 7.97(1H, s), 8.39(1H, s), 8.71(1H, d, J = 8.8 Hz)
244	δ 2.82(2H, t, J = 6.3 Hz), 4.41(2H, t, J = 6.3 Hz), 7.46(1H, t, J = 7.8 Hz), 7.54-7.57(1H, m), 7.81(1H, d, J = 8.3 Hz), 7.88(1H, d, J = 8.8 Hz), 7.91(1H, s), 8.10(1H, s), 8.56-8.63(2H, m), 9.55(1H, br-s)
245	δ4.40(2H, dt, J = 3.9 Hz, 14.1 Hz), 6.04(1H, tt, J = 3.9 Hz, 55.3 Hz), 7.43-7.48(1H, m), 7.55(1H, d, J = 7.8 Hz), 7.80(1H, d, J = 7.3 Hz), 7.86(1H, d, J = 8.8 Hz), 7.91(1H, s), 8.07(1H, s), 8.53(1H, s), 8.64(1H, d, J = 8.8 Hz), 9.42(1H, s)
246	δ4.56(2H, d, J = 5.9 Hz), 5.92(1H, t, J = 5.9 Hz), 6.97(1H, br-s), 7.49-7.57(2H, m), 7.69(1H, d, J = 7.3 Hz), 7.87-7.92(2H, m), 7.98(1H, s), 8.39(1H, s), 8.71(1H, d, J = 8.8 Hz)
247	δ 4.86(2H, s), 7.15(1H, br-s), 7.50-7.59(2H, m), 7.72(1H, d, J = 7.8 Hz), 7.86-7.92(2H, m), 8.02(1H, s), 8.40(1H, s), 8.71(1H, d, J = 8.8 Hz)
248	δ5.05(2H, s), 7.09(1H, br-s), 7.51-7.59(2H, m), 7.73(1H, d, J = 7.8 Hz), 7.88(1H, d, J = 8.3 Hz), 7.92(1H, s), 8.03(1H, s), 8.39(1H, s), 8.72(1H, d, J = 8.8 Hz)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
249	δ 2.49-2.60(2H, m), 4.44(2H, t, J = 6.3 Hz), 6.86(1H, br-s), 7.48-7.56(2H, m), 7.69(1H, d, J = 6.3 Hz), 7.88(1H, d, J = 8.8 Hz), 7.92(1H, s), 7.96(1H, s), 8.39(1H, s), 8.71(1H, d, J = 8.8 Hz)
250	δ4.68(2H, t, J = 13.2 Hz), 708(1H, br-s), 7.50-7.59(2H, m), 7.70(1H, br-d, J = 7.3 Hz), 7.87-7.92(2H, m), 8.00(1H, s), 8.39(1H, s), 8.71(1H, d, J = 8.7 Hz)
251	δ5.29(2H, s), 6.92(1H, br-s), 7.47-7.55(4H, m), 7.65-7.70(3H, m), 7.87(1H, d, J = 8.8 Hz), 7.92(1H, s), 7.97(1H, s), 8.38(1H, br-s), 8.71(1H, d, J = 8.8 Hz)
252	δ5.23(2H, s), 6.82(1H, br-s), 7.37(1H, d, J = 8.3 Hz), 7.50-7.53(2H, m), 7.6(1H, m), 7.75(1H, dd, J = 2.4 Hz, 8.3 Hz), 7.87-7.96(3H, m), 8.38(1H, br-s), 8.47(1H, d, J = 2.4 Hz), 8.72(1H, d, J = 8.3 Hz)
253	δ 1.31(6H, d, J = 6.3 Hz), 2.33(6H, s), 5.02(1H, septet, J = 6.3 Hz), 6.75(1H, br-s), 7.33(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.54-7.61(3H, m), 8.04(1H, s)
254	δ 2.34(6H, s), 4.39(2H, dt, J = 3.9 Hz, 13.6 Hz), 6.01(1H, tt, J = 3.9 Hz, 54.6 Hz), 6.98(1H, s), 7.34(2H, s), 7.46-7.50(2H, m), 7.60-7.66(2H, m), 8.02(1H, s)
255	δ 2.34 (6H, s), 4.61-4.66 (2H, m), 4.71-4.77 (2H, m), 5.18-5.30 (1H, m), 7.12 (1H, s), 7.34 (2H, s), 7.45-7.50 (1H, m), 7.52-7.66 (2H, m), 7.76-7.84 (1H, m), 8.04 (1H, s)
256	δ 2.34(6H, s), 4.58(2H, q, J = 8.3 Hz), 7.02(1H, s), 7.34(2H, s), 7.45-7.51(2H, m), 7.62-7.67(2H, m), 8.02(1H, s)
257	δ 2.34(6H, s), 4.85(2H, s), 7.10(1H, br), 7.34(2H, s), 7.47-7.51(2H, m), 7.63-7.67(2H, m), 8.05(1H, s)
258	δ1.48(3H, d, J = 6.8 Hz), 2.34(6H, s), 5.30-5.36(1H, m), 6.95(1H, br-s), 7.30(2H, s), 7.46-7.51(2H, m), 7.60-7.67(2H, m), 8.03(1H, br-s)
259	δ 2.35(6H, s), 2.49-2.59(2H, m), 4.42(2H, t, J = 6.3 Hz), 6.85(1H, br-s), 7.34(2H, s), 7.45-7.49(2H, m), 7.60-7.65(2H, m), 8.02(1H, br-s)
300	δ 4.85(2H, s), 7.10(1H, br), 7.50(1H, t, J = 7.8 Hz), 7.68-7.71(3H, m), 7.72(2H, s), 8.04(1H, s)
301	δ 4.85(2H, s), 7.08(1H, br), 7.51-7.55(1H, m), 7.69-7.72(2H, m), 7.84(1H, s), 8.06(2H, s), 8.10(1H, s)
331	δ 2.29(6H, s), 4.85(2H, s), 7.11-7.19(3H, m), 7.39(1H, s), 7.49(1H, t, J = 7.9 Hz), 7.66-7.73(2H, m), 8.00 (1H, s)
348	δ 2.35(6H, s), 3.81(3H, s), 6.80(1H, br), 7.36(2H, s), 7.44-7.63(4H, m), 8.02(1H, s)
377	δ 2.36(6H, s), 4.85(2H, s), 7.09(1H, s), 7.37(2H, s), 7.44(1H, s), 7.50(1H, t, J = 8.3 Hz), 7.67(2H, d, J = 7.3 Hz), 8.05 (1H, s)
424	δ4.85(2H, s), 7.10(1H, s), 7.51(1H, t, J = 7.8 Hz), 7.69-7.70(3H, m), 7.73(2H, s), 8.05(1H, s)
464	δ 2.47-2.59(2H, m), 4.41(2H, t, J = 6.3 Hz), 6.96(1H, br-s), 7.46(1H, t, J = 7.8 Hz), 7.63-7.67(2H, m), 7.83(1H, s), 7.91(2H, s), 8.00(1H, s)
471	δ 4.85(2H, s), 7.13(1H, br-s), 7.50(1H, t, J = 7.8 Hz), 7.68-7.74(3H, m), 7.92(2H, s), 8.04(1H, s)
511	(DMSO-d_6) δ 2.67-2.78(2H, m), 4.34(2H, t, J = 5.9 Hz), 7.50(1H, t, J = 7.8 Hz), 7.68-7.73(2H, m), 8.13(1H, s), 8.52(2H, s), 10.02(1H, s), 10.77(1H, s)
518	(DMSO-d_6) δ 4.96(2H, s), 7.52(1H, t, J = 7.8 Hz), 7.71-7.75(2H, m), 8.16(1H, s), 8.51(2H, s), 10.42(1H, s), 10.79(1H, s)
565	δ4.86(2H, s), 7.00(1H, br-s), 7.52(1H, t, J = 8.3 Hz), 7.70-7.73(3H, m), 7.93(2H, s), 8.06(1H, s)
605	δ 2.49-2.60(2H, m), 4.43(2H, t, J = 6.3 Hz), 6.82(1H, s), 7.49(1H, t, J = 7.8 Hz), 7.66-7.68(3H, m), 7.94(2H, s), 8.01(1H, s)
612	δ4.86(2H, s), 7.45(1H, t, J = 7.8 Hz), 7.72(1H, d, J = 7.8 Hz), 7.94(1H, br-s), 7.93(2H, s), 8.13(1H, s), 9.02(1H, s), 9.17(1H, s)
659	δ4.86(2H, s), 7.06(1H, s), 7.51(1H, t, J = 7.8 Hz), 7.68-7.71(3H, m), 7.93(2H, s), 8.06(1H, s)
706	δ4.84(2H, s), 7.40(1H, br-s), 7.48(1H, t, J = 7.8 Hz), 7.67-7.75(2H, m), 8.00(1H, s), 8.09(2H, s), 8.24(1H, s)
770	δ 2.39(3H, s), 4.86(2H, s), 7.00(1H, br-s), 7.48-7.67(5H, m), 7.79(1H, s), 8.04(1H, s), 8.24(1H, d, J = 8.8 Hz)
800	δ 2.31(6H, s), 4.85(2H, s), 7.11(1H, br-s), 7.43(2H, s), 7.47-7.53(2H, m), 7.66(1H, s), 7.67(1H, s), 8.05(1H, s)
817	δ0.89(3H, t, J = 7.3 Hz), 1.24-1.37(2H, m), 1.55-1.63(2H, m), 2.47-2.59(2H, m), 2.70(2H, t, J = 7.8 Hz), 4.42(2H, t, J = 5.9 Hz), 6.96(1H, br-s), 7.43-7.47(2H, m), 7.57(1H, d, J = 1.5 Hz), 7.62-7.64(2H, m), 7.74(1H, s), 8.00(1H, s)
818	δ0.86(3H, t, J = 7.3 Hz), 1.24-1.33(2H, m), 1.49-1.57(2H, m), 2.45-2.56(2H, m), 2.67(2H, t, J = 7.8 Hz), 4.38(2H, t, J = 6.3 Hz), 7.15(1H, s), 7.39(1H, t, J = 7.8 Hz), 7.48(1H, s), 7.62-7.64(2H, m), 7.88(1H, s), 7.93(1H, d, J = 2.0 Hz), 8.01(1H, s)
819	δ 0.81(3H, t, J = 7.3 Hz), 1.25(3H, d, J = 6.8 Hz), 1.53-1.64(2H, m), 2.49-2.60(2H, m), 2.92-3.01(1H, m), 4.43(2H, t, J = 5.9 Hz), 6.87(1H, br), 7.46-7.51(2H, m), 7.62-7.67(3H, m), 7.74(1H, d, J = 1.5 Hz), 8.01(1H, s)
820	δ1.32(6H, d, J = 6.3 Hz), 2.36(3H, s), 5.01-5.07(1H, m), 6.69(1H, s), 7.11-7.13(2H, m), 7.44(1H, t, J = 8.3 Hz), 7.55-7.59(2H, m), 7.68(1H, br-s), 7.95(1H, d, J = 8.3 Hz), 7.99(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
821	δ 1.27(6H, d, J = 6.8 Hz), 1.31(6H, d, J = 6.3 Hz), 2.96(1H, septet, J = 6.8 Hz), 5.05(1H, septet, J = 6.3 Hz), 6.79(1H, s), 7.42-7.52(4H, m), 7.72(1H, d, J = 7.8 Hz), 7.86(1H, t, J = 2.0 Hz), 8.14(1H, s), 8.21(1H, d, J = 8.3 Hz)
822	δ 1.33(6H, d, J = 6.6 Hz), 5.01-5.09(1H, m), 6.73(1H, s), 7.41-7.52(2H, m), 7.57-7.60(1H, m), 7.65(1H, s), 8.05(1H, s), 8.20(2H, s), 8.35(1H, s)
823	δ 1.32(6H, d, J = 6.3 Hz), 5.04(1H, septet, J = 6.3 Hz), 6.70(1H, br-s), 6.98-7.06(1H, m), 7.45(1H, t, J = 7.8 Hz), 7.53-7.55(1H, m), 7.62(1H, d, J = 8.8 Hz), 7.94(2H, s), 8.07-8.14(1H, m)
824	δ1.32 (6H, d, J = 6.1 Hz), 2.46 (3H, s), 2.54 (3H, d, J = 15 Hz), 5.04 (1H, septet, J = 6.1 Hz), 6.72 (1H, s), 7.40-7.44 (2H, m), 7.51-7.56 (3H, m), 7.94 (1H, s), 7.97 (1H, s)
825	δ 1.31(6H, d, J = 6.3 Hz), 2.30(3H, s), 5.03(1H, septet, J = 6.3 Hz), 6.72(1H, s), 7.20(1H, d, J = 2.2 Hz), 7.32(1H, d, J = 2.2 Hz), 7.43(1H, t, J = 7.8 Hz), 7.59-7.62(3H, m), 8.00(1H, s)
826	δ1.31 (6H, d, J = 6.3 Hz), 2.28 (3H, s), 2.31 (3H, s), 5.03 (1H, septet, J = 6.3 Hz), 6.71 (1H, br-s), 7.01 (1H, s), 7.13 (1H, s), 7.43 (1H, t, J = 7.8 Hz), 7.61-7.63 (3H, m), 7.97 (1H, s)
827	δ 1.31(6H, d, J = 6.1 Hz), 2.25(6H, s), 5.03(1H, septet, J = 6.1 Hz), 6.70(1H, br-s), 7.26(2H, s), 7.38(1H, br-s), 7.43(1H, t, J = 7.8 Hz), 7.55-7.61(2H, m), 8.01(1H, s)
828	δ 1.31(6H, d, J = 6.3 Hz), 2.24(6H, s), 5.02(1H, septet, J = 6.3 Hz), 6.71(1H, br-s), 7.26(2H, s), 7.39-7.44(2H, m), 7.55-7.60(2H, m), 8.00(1H, s)
829	δ1.31 (6H, d, J = 6.4 Hz), 2.23 (6H, s), 5.03 (1H, septet, J = 6.4 Hz), 6.69 (1H, br-s), 7.37 (1H, br-s), 7.43 (1H, t, J = 7.8 Hz), 7.48 (2H, s), 7.55-7.61 (2H, m), 8.01 (1H, br-s)
830	δ1.32 (6H, d, J = 6.3 Hz), 2.35 (6H, s), 5.04 (1H, septet, J = 6.3 Hz), 6.72 (1H, s), 7.32-7.36 (3H, m), 7.41-7.46 (4H, m), 7.56-7.63 (4H, m), 8.00 (1H, s)
831	δ1.32 (6H, d, J = 6 Hz), 2.30 (3H, s), 2.32 (6H, s), 5.04 (1H, septet, J = 6 Hz), 6.73 (1H, s), 7.08 (2H, s), 7.22-7.26 (4H, m), 7.43-7.48 (2H, m), 7.61-7.63 (2H, m), 8.01 (1H, s)
832	δ1.32(6H, d, J = 6 Hz), 2.31(6H, s), 2.42(3H, s), 5.04(1H, septet, J = 6 Hz), 6.71(1H, s), 7.16(1H, d, J = 8 Hz), 7.30-7.59(7H, m), 7.62(2H, t, J = 8 Hz), 8.01(1H, s)
833	δ1.31(6H, d, J = 6 Hz), 2.33(6H, s), 2.49(3H, s), 5.03(1H, septet, J = 6 Hz), 6.73(1H, s), 7.12-7.25(2H, m), 7.32(2H, s), 7.42-7.52(4H, m), 7.59-7.63(2H, m), 7.99(1H, s)
834	δ1.32(6H, d, J = 6 Hz), 2.32(6H, s), 3.80(3H, s), 5.04(1H, septet, J = 6 Hz), 6.73(1H, s), 6.97(1H, d, J = 8 Hz), 7.02(1H, t, J = 7 Hz), 7.27(2H, s), 7.30(2H, d, J = 7 Hz), 7.34-7.46(2H, m), 7.60-7.63(2H, m), 7.95(1H, s)
835	δ1.32(6H, d, J = 7 Hz), 2.34(6H, s), 3.87(3H, s), 5.04(1H, septet, J = 7 Hz), 6.72(1H, s), 6.88-6.91(1H, m), 7.11(1H, t, J = 2 Hz), 7.16(1H, td, J = 8 Hz, 1 Hz), 7.33-7.37(3H, m), 7.43-7.50(2H, m), 7.59-7.64(2H, m), 8.01(1H, s)
836	δ1.32(6H, d, J = 7 Hz), 2.33(6H, s), 3.85(3H, s), 5.04(1H, septet, J = 7 Hz), 6.73(1H, br-s), 6.96(2H, d, J = 9 Hz), 7.29(2H, s), 7.42-7.52(4H, m), 7.60-7.63(2H, m), 8.00(1H, s)
837	δ1.32 (6H, d, J = 6 Hz), 1.44 (3H, t, J = 7 Hz), 2.33 (6H, s), 4.08 (2H, q, J = 7 Hz), 5.04 (1H, septet, J = 6 Hz), 6.72 (1H, s), 6.94-6.97 (2H, m), 7.29 (2H, s), 7.42-7.52 (4H, m), 7.61-7.63 (2H, m), 7.99 (1H, s)
838	δ1.31 (6H, d, J = 6 Hz), 2.34 (6H, s), 2.53 (3H, s), 5.04 (1H, septet, J = 6 Hz), 6.72 (1H, s), 7.31-7.65 (10H, m), 8.00 (1H, s).
839	δ1.31 (6H, d, J = 6.3 Hz), 2.34 (6H, s), 5.04 (1H, septet, J = 6.3 Hz), 6.72 (1H, s), 7.12-7.32 (5H, m), 7.41-7.48 (3H, m), 7.61-7.63 (2H, m), 7.99 (1H, s)
840	δ1.32(6H, d, J = 7 Hz), 2.34(6H, s), 5.03(1H, septet, J = 7 Hz), 6.74(1H, br s), 7.01-7.05(1H, m), 7.28-7.64(9H, m), 8.02(1H, s)
841	δ1.31 (6H, d, J = 7 Hz), 2.34 (6H, s), 5.04 (1H, septet, J = 7 Hz), 6.73 (1H, s), 7.11 (2H, t, J = 9 Hz), 7.28 (2H, s), 7.42-7.63 (6H, m), 8.01 (1H, s)
842	δ1.24 (6H, d, J = 6.8 Hz), 1.31 (6H, d, J = 6.3 Hz), 2.32 (3H, s), 2.86 (1H, septet, J = 6.8 Hz), 5.03 (1H, septet, J = 6.3 Hz), 6.74 (1H, s), 7.08 (1H, s), 7.33 (1H, d, J = 2.0 Hz), 7.43 (1H, t, J = 7.8 Hz), 7.61-7.65 (3H, m), 7.96 (1H, s)
843	δ1.32 (6H, d, J = 6.3 Hz), 2.37 (3H, s), 5.03 (1H, septet, J = 6.3 Hz), 6.74 (1H, s), 7.46 (1H, t, J = 7.8 Hz), 7.51-7.57 (2H, m), 7.61-7.65 (2H, m), 7.90 (1H, s), 8.08 (1H, s)
844	δ 1.32(6H, d, J = 6.3 Hz), 2.35(3H, s), 5.03(1H, septet, J = 6.3 Hz), 6.72(1H, s), 7.09(1H, s), 7.21(1H, d, J = 2.2 Hz), 7.44(1H, t, J = 8.1 Hz), 7.52-7.61(3H, m), 8.02(1H, s)
845	δ 1.29(6H, d, J = 6.8 Hz), 1.31(6H, d, J = 6.3 Hz), 2.98(1H, septet, J = 6.8 Hz), 5.04(1H, septet, J = 6.3 Hz), 6.70(1H, s), 7.42-7.48(2H, m), 7.56-7.67(4H, m), 7.92(1H, s)
846	δ 1.32(6H, d, J = 6.3 Hz), 5.03(1H, septet, J = 6.3 Hz), 6.75(1H, br-s), 7.41-7.51(2H, m), 7.62-7.65(1H, m), 7.91(1H, br-s), 8.08(1H, s)
847	(DMSO-d_6) δ 1.24-1.44(5H, m), 1.68-1.80(5H, m), 2.46-2.50(1H, m), 4.97(2H, s), 7.19(2H, d, J = 8.8 Hz), 7.47(1H, t, J = 7.8 Hz), 7.60-7.70(4H, m), 8.04(1H, s), 10.19(1H, s), 10.37(1H, s)
848	δ 4.84(2H, s), 7.29(1H, d, J = 7.8 Hz), 7.35(1H, br-s), 7.48(1H, t, J = 7.8 Hz), 7.56-7.67(3H, m), 7.75(1H, d, J = 7.3 Hz), 7.97(1H, s), 8.23(1H, s), 8.37(1H, d, J = 7.8 Hz)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
849	δ 4.85(2H, s), 7.12(1H, br-s), 7.47(1H, t, J = 7.8 Hz), 7.59-7.67(4H, m), 7.72-7.75(2H, m), 7.99(1H, s), 8.03(1H, s)
850	(DMSO-d_6) δ 4.87(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.65(1H, d, J = 7.8 Hz), 7.82(1H, d, J = 7.8 Hz), 7.96(2H, d, J = 8.8 Hz), 8.07(1H, s), 8.18-8.22(2H, m), 9.66(1H, br), 10.51(1H, s)
851	δ4.85(2H, s), 6.67(1H, br-s), 7.47(1H, t, J = 7.8 Hz), 7.60-7.64(2H, m), 7.65(2H, d, J = 8.8 Hz), 7.74(2H, d, J = 8.8 Hz), 7.98(1H, s), 8.00(1H, s)
852	δ4.86(2H, s), 7.09(1H, br-s), 7.48-7.53(1H, m), 7.61-7.65(2H, m), 7.81(2H, d, J = 8.8 Hz), 7.95(2H, d, J = 8.8 Hz), 7.95-8.04(1H, m), 8.14(1H, s)
854	δ0.90(3H, t, J = 7.3 Hz), 1.28-1.38(2H, m), 1.56-1.65(2H, m), 2.72(2H, t, J = 7.8 Hz), 4.85(2H, s), 7.14(1H, br-s), 7.45(1H, s), 7.50(1H, t, J = 7.8 Hz), 7.58(1H, d, J = 1.5 Hz), 7.66-7.68(3H, m), 8.04(1H, s)
855	δ 0.88(3H, t, J = 7.3 Hz), 1.24-1.35(2H, m), 1.52-1.60(2H, m), 2.70(2H, t, J = 7.8 Hz), 4.84(2H, s), 7.27(1H, s), 7.46-7.50(2H, m), 7.67-7.69(2H, m), 7.76(1H, s), 7.94(1H, d, J = 1.5 Hz), 8.06(1H, s)
856	δ 0.81(3H, t, J = 7.3 Hz), 1.25(3H, d, J = 5.9 Hz), 1.55-1.65(2H, m), 2.91-3.01(1H, m), 4.85(2H, s), 7.14(1H, br), 7.50-7.53(2H, m), 7.61-7.77(4H, m), 8.05(1H, s)
857	δ0.90(3H, t, J = 7.3 Hz), 1.31(3H, d, J = 6.8 Hz), 1.63-1.74(2H, m), 2.82-2.91(1H, m), 4.85(2H, s), 7.22(1H, s), 7.47-7.53(3H, m), 7.58-7.62(1H, m), 7.66(1H, d, J = 8.3 Hz), 7.93(1H, s), 8.05(1H, s), 8.13-8.15(1H, m)
858	δ 2.36(3H, s), 4.85(2H, s), 7.11-7.14(3H, m), 7.49(1H, t, J = 8.3 Hz), 7.61-7.69(3H, m), 7.95(1H, d, J = 8.3 Hz), 8.02(1H, s)
859	δ 2.31 (3H, s), 4.34 (2H, q, J = 7.8 Hz), 4.84 (2H, s), 6.80-6.86 (2H, m), 7.16 (1H, br-s), 7.47 (1H, t, J = 7.8 Hz), 7.60-7.72 (4H, m), 7.99 (1H, br-s)
860	δ 2.39(3H, s), 4.85(2H, s), 7.09-8.14(9H, m)
861	δ 2.31(3H, s), 4.84(2H, s), 7.17(1H, br), 7.20-7.23(2H, m), 7.47(1H, t, J = 8.1), 7.58-7.67(3H, m), 7.84-7.87(1H, m), 8.00(1H, s)
862	δ 1.27(6H, d, J = 6.8 Hz), 2.97(1H, septet, J = 6.8 Hz), 4.85(2H, s), 7.18(1H, br), 7.46-7.51(3H, m), 7.57(1H, dd, J = 1.5 Hz, 7.8 Hz), 7.74(1H, d, J = 7.8 Hz), 7.94(1H, s), 8.14(1H, s), 8.21(1H, d, J = 8.3 Hz)
863	δ4.87(2H, s), 7.51-8.01(8H, m), 8.86(1H, s)
864	δ 4.87(2H, s), 7.08(1H, br.), 7.49-7.58(4H, m), 8.07(1H, br.), 8.20(3H, s)
865	δ 4.86(2H, s), 7.08(1H, br-s), 7.48-7.60(3H, m), 7.64(1H, d, J = 2.4 Hz), 7.72(1H, d, J = 7.3 Hz), 7.98(1H, s), 8.18(1H, s), 8.39(1H, d, J = 8.8 Hz)
866	δ 4.85(2H, s), 7.06(1H, br), 7.41-7.51(2H, m), 7.60(1H, s), 7.65-7.74(4H, m), 7.97(1H, s)
867	δ4.86 (2H, s), 7.10 (1H, br-s), 7.48-7.57 (2H, m), 7.71 (1H, d, J = 8.3 Hz), 7.90-7.97 (3H, m), 8.19 (1H, br-s), 8.22 (1H, d, J = 8.8 Hz)
868	δ 4.85(2H, s), 7.12(1H, br-s), 7.46-7.56(4H, m), 7.71(1H, d, J = 7.8 Hz), 7.99(1H, s), 8.14(1H, s), 8.48(1H, d, J = 8.8 Hz)
869	δ 4.84(2H, s), 6.97-7.05(1H, m), 7.22(1H, br-s), 7.48(1H, t, J = 7.8 Hz), 7.59(1H, d, J = 7.8 Hz), 7.69(1H, d, J = 7.8 Hz), 7.96(1H, s), 7.98(1H, s), 8.05-8.12(1H, m)
870	δ 2.46 (3H, s), 2.55 (3H, d, J = 14 Hz), 4.86 (2H, s), 7.13 (1H, br s), 7.40 (1H, s), 7.46-7.62 (4H, m), 7.88 (1H, s), 7.99 (1H, s)
871	δ 2.34(3H, s), 2.38(3H, s), 4.85(2H, s), 6.97-8.03(8H, m)
872	δ 2.31(6H, s), 3.99(1H, s), 4.85(2H, s), 7.15(1H, br-s), 7.45-7.51 (4H, m), 7.64-7.66(2H, m), 8.01(1H, s)
873	δ 2.34(6H, s), 3.74(1H, s), 4.85(2H, s), 7.08(1H, br-s), 7.48(1H, s), 7.49(2H, s), 7.52(1H, s), 7.65-7.67(2H, m), 8.04(1H, s)
874	δ 2.30(6H, s), 4.87(2H, s), 7.08(1H, br), 7.49-7.58(4H, m), 8.07(1H, br), 8.20(3H, s)
875	δ 2.25(6H, s), 4.85(2H, s), 7.07(1H, br), 7.12(2H, s), 7.36(1H, br-s), 7.48(1H, t, J = 7.8 Hz), 7.64-7.66(2H, m), 8.02(1H, s)
876	δ 2.28 (3H, s), 2.31 (3H, s), 4.84 (2H, s), 7.00 (1H, s), 7.12 (1H, s), 7.18 (1H, br), 7.47 (1H, t, J = 7.8 Hz), 7.60 (1H, s), 7.66-7.68 (2H, m), 7.99 (1H, s)
877	δ 2.19(6H, s), 4.82(2H, s), 7.22(2H, s), 7.41(1H, t, J = 8.1 Hz), 7.48(1H, br), 7.61-7.66(3H, m), 7.99(1H, s)
878	δ 2.22 (6H, s), 4.84 (2H, s), 7.13 (1H, br-s), 7.39 (1H, s), 7.45-7.49 (3H, m), 7.64-7.65 (2H, m), 8.01 (1H, br-s)
879	δ 2.35 (6H, s), 4.85 (2H, s), 7.09 (1H, s), 7.32-7.69 (11H, m), 8.02 (1H, s)
880	δ 2.30 (3H, s), 2.32 (6H, s), 4.85 (2H, s), 7.09 (2H, s), 7.13 (1H, s), 7.21-7.27 (4H, m), 7.46-7.51 (2H, m), 7.68 (2H, d, J = 7 Hz), 8.03 (1H, s)
881	δ 2.34(6H, s), 2.42(3H, s), 4.85(2H, s), 7.12-7.23(2H, m), 7.29-7.39(4H, m), 7.47-7.52(2H, m), 7.68(2H, d, J = 7 Hz), 8.03(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
882	δ 2.34(6H, s), 2.40(3H, s), 4.85(2H, s), 7.13(1H, d, J = 4 Hz), 7.23-7.26(2H, m), 7.30(2H, s), 7.33-7.50(4H, m), 7.67(2H, d, J = 8 Hz), 8.02(1H, s)
883	δ 2.32(6H, s), 3.81(3H, s), 4.85(2H, s), 6.97-7.04(2H, m), 7.10(1H, br s), 7.28(2H, s), 7.30-7.34(2H, m), 7.42(1H, s), 7.49(1H, t, J = 8 Hz), 7.66-7.70(2H, m), 7.99(1H, s)
884	δ 2.35(6H, s), 3.88(3H, s), 4.85(2H, s), 6.89-6.91(1H, m), 7.10-7.18(3H, m), 7.33-7.37(3H, m), 7.47-7.52(2H, m), 7.68(2H, d, J = 7 Hz), 8.03(1H, s)
885	δ 2.33(6H, s), 3.86(3H, s), 4.85(2H, s), 6.96(2H, d, J = 9 Hz), 7.14(1H, br s), 7.30(2H, s), 7.47-7.53(4H, m), 7.68(2H, d, J = 7 Hz), 8.02(1H, s)
886	δ1.44 (3H, t, J = 7 Hz), 2.33 (6H, s), 4.08 (2H, q, J = 7 Hz), 4.85 (2H, s), 6.95 (2H, d, J = 9 Hz), 7.13 (1H, s), 7.30 (2H, s), 7.45-7.52 (4H, m), 7.68 (2H, d, J = 7 Hz), 8.01 (1H, s)
887	δ 2.33 (6H, s), 2.53 (3H, s), 4.84 (2H, s), 7.14 (1H, s), 7.30-7.38 (4H, m), 7.46-7.57 (4H, m), 7.67 (2H, d, J = 6 Hz), 8.02 (1H, s)
888	δ 2.34 (6H, s), 4.85 (2H, s), 7.10-7.34 (6H, m), 7.41-7.52 (3H, m), 7.68 (2H, d, J = 8 Hz), 8.02 (1H, s)
889	δ 2.34(6H, s), 4.85(2H, s), 7.01-7.06(1H, m), 7.16(1H, br s), 7.25-7.50(8H, m), 7.68(1H, d, J = 8 Hz), 8.03(1H, s)
890	δ 2.33 (6H, s), 4.85 (2H, s), 7.09-7.15 (3H, m), 7.29 (2H, s), 7.46-7.55 (4H, m), 7.67-7.69 (2H, m), 8.03 (1H, s)
891	δ 2.34(6H, s), 4.85(2H, s), 7.09(1H, br s), 7.18-7.30(4H, m), 7.34-7.51(3H, m), 7.67-7.69(2H, m), 8.04(1H, s)
892	δ 2.30(9H, s), 4.85(2H, s), 7.05(1H, t, J = 8.8 Hz), 7.14(1H, br s), 7.28(2H, s), 7.32-7.51(4H, m), 7.67-7.69(2H, m), 8.03(1H, s)
893	δ 2.31(6H, s), 4.85(2H, s), 6.69(1H, s), 7.09(1H, br-s), 7.25(2H, s), 7.41(1H, s), 7.47-7.51(2H, m), 7.66-7.68(2H, m), 7.72(1H, s), 8.02(1H, s)
894	δ 2.30(6H, s), 4.84(2H, s), 7.07-7.09(1H, m), 7.25(1H), 7.27-7.29(1H, m), 7.36(2H, s), 7.36(2H, s), 7.45-7.50(2H, m), 7.65-7.67(2H, m), 8.02(1H, s)
895	δ 2.32(6H, s), 4.85(2H, s), 7.18(1H, s), 7.35-7.50(7H, m), 7.67(2H, d, J = 6.8 Hz), 8.02(1H, s)
896	δ 2.31(3H, s), 4.85(2H, s), 7.10(1H, br), 7.20(1H, d, J = 2.2 Hz), 7.32(1H, d, J = 2.2 Hz), 7.49(1H, t, J = 7.8 Hz), 7.57(1H, s), 7.66-7.68(2H, m), 8.02(1H, s)
897	(DMSO-d_6) δ 4.85(2H, s), 7.44(1H, t, J = 7.8 Hz), 7.63-7.68(2H, m), 7.72(1H, d, J = 2.4 Hz), 7.84(1H, s), 8.06(1H, s), 8.80(1H, s), 9.09(1H, s)
898	δ4.85(2H, s), 7.00(1H, br-s), 7.51(1H, t, J = 8.3 Hz), 7.69-7.72(5H, m), 8.05(1H, s)
899	δ4.86(2H, s), 7.00(1H, br-s), 7.53(1H, t, J = 7.8 Hz), 7.67-7.73(2H, m), 7.92(1H, s), 8.05(2H, s), 8.11(1H, s)
900	(DMSO-d_6) δ 4.98(2H, s), 7.52(1H, t, J = 7.8 Hz), 7.70-7.75(2H, m), 8.17(1H, s), 8.31(2H, s), 10.42(1H, s), 10.63(1H, s)
901	(DMSO-d_6) δ 1.24-1.47(5H, m), 1.66-1.80(5H, m), 2.54-2.60(1H, m), 4.96(2H, s), 7.48(1H, t, J = 7.8 Hz), 7.60(2H, s), 7.67-7.71(2H, m), 8.11(1H, s), 10.24(1H, s), 10.37(1H, s)
902	(DMSO-d_6) δ 4.86(2H, s), 7.44(1H, t, J = 7.8 Hz), 7.67(1H, d, J = 7.8 Hz), 7.82(1H, d, J = 2.0 Hz), 7.85(1H, s), 8.05(1H, d, J = 2.0 Hz), 8.06(1H, d, J = 7.8 Hz), 9.04(1H, s), 9.27(1H, s)
903	δ4.86(2H, s), 7.00(1H, br-s), 7.51(1H, t, J = 7.8 Hz), 7.70(2H, d, J = 7.8 Hz), 7.75(1H, s), 7.94(2H, s), 8.06(1H, s)
904	δ 2.20(3H, s), 4.85(2H, s), 6.60(1H, d, J = 2.4 Hz), 7.17(1H, br.), 7.50(1H, t, J = 7.8 Hz), 7.54(1H, s), 7.59(1H, s), 7.69(1H, d, J = 7.8 Hz), 7.72(1H, br), 8.03(1H, s)
905	δ 2.36(3H, s), 4.85(2H, s), 7.08(1H, br-s), 7.10(1H, s), 7.22-7.23(1H, m), 7.50(1H, t, J = 8.1 Hz), 7.59(1H, s), 7.67-7.69(2H, m), 8.04(1H, s)
906	δ 2.36(3H, s), 4.86(2H, s), 4.88(2H, s), 7.04(1H, br.), 7.12(1H, d, J = 2.4 Hz), 7.27(1H, s), 7.50(1H, t, J = 7.8 Hz), 7.56(1H, s), 7.67-7.70(2H, m), 8.02(1H, s)
907	δ 2.38 (3H, s), 4.85 (2H, s), 7.14 (1H, br), 7.49-7.53 (2H, m), 7.62-7.70 (3H, m), 7.85 (1H, s), 8.09(1H, s)
908	δ 2.28 (3H, s), 4.84 (2H, s), 7.11 (1H, br-s), 7.48 (1H, t, J = 7.8 Hz), 7.55 (1H, s), 7.59 (1H, s), 7.64-7.68 (3H, m), 8.01 (1H, br-s)
909	δ1.24 (6H, d, J = 6.8 Hz), 2.33 (3H, s), 2.86 (1H, septet, J = 6.8 Hz), 4.85 (2H, s), 7.09 (1H, s), 7.16 (1H, br), 7.33 (1H, d, J = 2.0 Hz), 7.48 (1H, t, J = 7.8 Hz), 7.60 (1H, s), 7.67-7.69 (2H, m), 8.00 (1H, s)
910	δ 2.23(3H, s), 4.86(2H, s), 6.51(1H, s), 6.78(1H, d, J = 2.4 Hz), 7.15(1H, br.), 7.49(1H, br.), 7.51(1H, t, J = 7.8), 7.56(1H, s), 7.71(1H, d, J = 6.8 Hz), 8.05(1H, s)
911	δ 1.29(6H, d, J = 7.3 Hz), 2.98(1H, septet, J = 7.3 Hz), 4.85(2H, s), 7.10(1H, br), 7.47-7.52(2H, m), 7.56-7.58(2H, m), 7.65(1H, d, J = 7.3 Hz), 7.72(1H, br), 7.96(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
912	δ 2.37(3H, s), 4.85(2H, s), 4.88(2H, s), 7.06(1H, br), 7.16(1H, d, J = 2.4 Hz), 7.43(1H, d, J = 2.4 Hz), 7.50(1H, t, = 7.8 Hz), 7.56(1H, s), 7.68(1H, s), 7.70(1H, s), 8.03(1H, s)
913	(DMSO-d_6) δ 4.96(2H, s), 7.49(1H, t, J = 7.8 Hz), 7.64(1H, d, J = 7.8 Hz), 7.71(1H, d, J = 7.8 Hz), 8.02(1H, d, J = 2.0 Hz), 8.10(1H, s), 8.30(1H, d, J = 2.0 Hz), 10.34(1H, s), 10.38(1H, s)
914	(DMSO-d_6) δ 1.29(6H, d, J = 6.8 Hz), 2.99(1H, septet, J = 6.8 Hz), 4.86(2H, s), 7.42(1H, t, J = 7.8 Hz), 7.52(1H, d, J = 1.5 Hz), 7.68(1H, d, J = 7.8 Hz), 7.74(1H, d, J = 1.5 Hz), 7.85(1H, d, J = 7.8 Hz), 8.09(1H, s), 9.27(1H, s), 9.66(1H, s)
915	δ 4.85(2H, s), 7.04(1H, br), 7.47-7.55(2H, m), 7.63-7.70(3H, m), 7.90(1H, d, J = 1.5 Hz), 7.99(1H, s)
916	(DMSO-d6) δ 4.86(2H, s), 7.43(1H, t, J = 7.8 Hz), 7.70(1H, d, J = 7.8 Hz), 7.84(1H, d, J = 7.8 Hz), 8.10(1H, s), 9.46(1H, br-s), 9.73(1H, br-s)
917	δ 2.22 (6H, s), 3.79 (2H, t, J = 5.4 Hz), 4.42 (2H, t, J = 5.4 Hz), 7.37 (1H, t, J = 7.8 Hz), 7.44 (2H, s), 7.63 (1H, d, J = 7.8 Hz), 7.71 (1H, d, J = 7.8 Hz), 8.12 (1H, br-s), 9.37 (1H, s), 9.60 (1H, br-s)
918	δ 2.34(6H, s), 2.53-2.56(2H, m), 4.43(2H, t, J = 6.3 Hz), 6.80(1H, br-s), 7.41(1H, s), 7.47(2H, s), 7.50(1H, s), 7.62-7.64(2H, m), 7.9(1H, s)
919	(DMSO-d_6) δ 2.66-2.78(2H, m), 4.34(2H, t, J = 5.9 Hz), 7.49(1H, t, J = 7.8 Hz), 7.66-7.72(2H, m), 8.12(1H, s), 8.30(2H, s), 10.00(1H, s), 10.60(1H, s)
920	δ 1.32 (6H, d, J = 6.1 Hz), 2.51 (3H, s), 5.01-5.07 (1H, m), 6.72 (1H, br-s), 7.50 (1H, t, J = 7.8 Hz), 7.54-7.57 (2H, m), 7.64 (1H, d, J = 8.1 Hz), 7.71 (2H, d, J = 7.3 Hz), 7.85 (1H, s), 8.01-8.03 (1H, m), 8.13 (1H, s), 8.45-8.48 (1H, m)
921	δ1.32 (6H, d, J = 6.1 Hz), 1.74-1.77 (2H, m), 1.84-1.87 (2H, m), 2.74 (2H, t, J = 6.4 Hz), 3.02 (2H, q, J = 6.4 Hz), 5.04 (1H, septet, J = 6.1 Hz), 6.73 (1H, br s), 7.42-7.46 (2H, m), 7.52-7.55 (1H, m), 7.62 (1H, br s, J = 8 Hz), 7.76 (1H, br s), 7.96 (1H, br s), 8.03-8.06 (1H, m)
922	δ1.31 (6H, d, J = 6.4 Hz), 1.68-1.76 (4H, m), 2.81 (2H, t, J = 5.7 Hz), 2.99 (2H, q, J = 6.1 Hz), 5.03 (1H, septet, J = 6.4 Hz), 6.73 (1H, br-s), 7.43-7.47 (2H, m), 7.59-7.64 (3H, m), 8.03 (1H, s)
923	δ1.31 (6H, d, J = 6.4 Hz), 3.83 (3H, s), 5.02 (1H, septet, J = 6.4 Hz), 6.55 (1H, s), 6.78 (1H, br-s), 7.41-7.50 (2H, m), 7.57 (1H, d, J = 7.8 Hz), 8.03 (1H, br-s), 8.08 (1H, br-s)
924	δ1.32 (6H, d, J = 6.3 Hz), 3.86 (3H, s), 5.04 (1H, septet, J = 6.3 Hz), 6.72 (1H, br-s), 7.45-7.53 (2H, m), 7.63 (1H, d, J = 7.3 Hz), 7.80 (1H, br-s), 8.14 (1H, br-s)
925	δ1.32 (6H, d, J = 5.9 Hz), 3.89 (3H, s), 5.04 (1H, septet, J = 5.9 Hz), 6.72 (1H, s), 7.47-7.50 (2H, m), 7.70 (1H, d, J = 8.3 Hz), 7.90 (1H, br-s), 8.14 (1H, br-s)
926	δ1.32 (6H, d, J = 6.1 Hz), 3.88 (3H, s), 3.93 (3H, s), 5.04 (1H, septet), 6.78 (1H, br-s), 7.47 (1H, br-s), 7.64-7.68 (2H, m), 8.05 (1H, br-s), 9.40 (1H, br-s)
927	δ1.33 (6H, d, J = 5.9 Hz), 2.34 (3H, s), 5.02 (1H, septet, J = 5.9 Hz), 6.74 (1H, br-s), 7.24 (1H, s), 7.44 (1H, t, J = 7.8 Hz), 7.49-7.52 (1H, m), 7.58-7.60 (1H, m), 7.82 (1H, br-s), 8.07 (1H, br-s), 8.71(1H, s)
928	δ1.31 (6H, d, J = 6.4 Hz), 2.35 (3H, s), 5.01-5.07 (1H, m), 6.74 (1H, br-s), 7.25 (1H, s), 7.46 (1H, t, J = 7.8 Hz), 7.58-7.63 (2H, m), 7.68 (1H, br-s), 8.07 (1H, br-s)
929	δ1.32 (6H, d, J = 5.9 Hz), 5.03 (1H, septet, J = 5.9 Hz), 6.52 (1H, septet, J = 6.3 Hz), 6.71 (1H, br-s), 6.99 (1H, d, J = 8.8 Hz), 7.43 (1H, t, J = 7.8 Hz), 7.51-7.58 (2H, m), 7.92 (1H, br-s), 8.01 (1H, br-s), 8.14 (1H, dd, J = 8.8 Hz, 2.4 Hz), 8.34 (1H, d, J = 2.4 Hz)
930	δ1.32 (6H, d, J = 5.9 Hz), 2.33 (3H, s), 5.50 (1H, septet, J = 5.9 Hz), 6.53 (1H, septet, J = 6.4 Hz), 6.74 (1H, br-s), 6.87 (1H, s), 7.43 (1H, t, J = 7.8 Hz), 7.54-7.58 (2H, m), 7.64 (1H, br-s), 8.04 (1H, br-s), 8.37 (1H, s)
931	δ1.32 (6H, d, J = 6.3 Hz), 5.05 (1H, septet, J = 6.3 Hz), 6.30 (1H, septet, J = 6.3 Hz), 6.69 (1H, br-s), 7.01 (1H, d, J = 8.8 Hz), 7.47 (1H, t, J = 7.8 Hz), 7.56 (1H, dd, J = 7.8 Hz, 1.5 Hz), 7.68 (1H, d, J = 7.8 Hz), 7.98 (1H, br-s), 8.27 (1H, br-s), 8.82 (1H, d, J = 8.8 Hz)
932	δ1.32 (6H, d, J = 6.4 Hz), 2.29 (3H, s), 2.41 (3H, s), 5.04 (1H, septet, J = 6.4 Hz), 6.58 (1H, septet, J = 6.4 Hz), 6.72 (2H, s), 7.37-7.46 (2H, m), 7.53-7.57 (1H, m), 7.60 (1H, d, J = 7.8 Hz), 8.05 (1H, br-s)
933	δ 2.49 (3H, s), 4.85 (2H, s), 7.16 (1H, br-s), 7.48-7.57 (3H, s), 7.70 (2H, s), 7.76 (1H, d, J = 7.6 Hz), 7.92 (1H, s), 8.00 (1H, dd, J = 3.4 Hz, 6.8 Hz), 8.13 (1H, s), 8.47 (1H, dd, J = 3.4 Hz, 6.8 Hz)
934	δ1.75-1.79 (2H, m), 1.84-1.87 (2H, m), 2.74 (2H, t, J = 6.4 Hz), 3.02 (2H, q, J = 6.4 Hz), 4.85 (2H, s), 7.13 (1H, br s), 7.41-7.51 (2H, m), 7.59-7.69 (2H, m), 7.76 (1H, br s), 8.00 (1H, br s), 8.06 (1H, br d, J = 8.5 Hz)
935	δ1.65-1.76 (4H, m), 2.81 (2H, t, J = 6.1 Hz), 2.99 (2H, q, J = 6.4 Hz), 4.85 (2H, s), 7.10 (1H, br-s), 7.48-7.52 (2H, m), 7.59 (1H, s), 7.67-7.69 (2H, m), 8.04 (1H, s)
936	δ3.86 (3H, s), 4.85 (2H, s), 6.58 (1H, s), 7.10 (1H, br-s), 7.51 (1H, t, J = 7.8 Hz), 7.60 (1H, d, J = 7.8 Hz), 7.65 (1H, d, J = 7.8 Hz), 7.84 (1H, br-s), 8.10 (1H, br-s)
937	δ3.85 (3H, s), 4.85 (2H, s), 7.16 (1H, br-s), 7.51 (1H, t, J = 7.9 Hz), 7.62 (1H, d, J = 7.9 Hz), 7.68 (1H, d, J = 7.9 Hz), 7.85 (1H, br-s), 8.12 (1H, br-s)
938	δ3.87 (3H, s), 4.85 (2H, s), 7.21 (1H, br-s), 7.51 (1H, t, J = 8.3 Hz), 7.61 (1H, d, J = 8.3 Hz), 7.68 (1H, d, J = 8.3 Hz), 7.92 (1H, br-s), 8.13 (1H, br-s)
939	δ3.89 (3H, s), 3.94 (3H, s), 4.86 (2H, s), 7.20 (1H, br-s), 7.52 (1H, t, J = 7.8 Hz), 7.70-7.73 (2H, m), 8.09 (1H, br-s), 9.44 (1H, s)
940	δ4.87 (2H, s), 7.07-7.11 (2H, m), 7.31-7.34 (1H, m), 7.47-7.52 (2H, m), 7.67-7.69 (1H, m), 8.01 (1H, dd, J = 8.0 Hz, 1.4 Hz), 8.19 (1H, br-s), 8.58-8.60 (1H, m), 11.3 (1H, br-s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
941	δ4.84 (2H, s), 7.19 (1H, br-s), 7.33 (1H, dd, J = 8.3 Hz, 4.8 Hz), 7.44 (1H, t, J = 8.3 Hz), 7.58-7.59 (2H, m), 7.94-7.97 (2H, m), 8.44 (1H, dd, J = 4.8 Hz, 1.4 Hz), 9.14 (1H, br-s)
942	δ 2.44 (3H, s), 4.86 (2H, s), 7.11 (1H, br-s), 7.52 (1H, t, J = 7.8 Hz), 7.59 (1H, d, J = 2.9 Hz), 7.63-7.65 (2H, m), 7.76 (1H, s), 8.09 (1H, s), 9.23 (1H, s)
943	δ4.85 (2H, s), 6.52 (1H, septet, J = 6.3 Hz), 6.99 (1H, d, J = 8.8 Hz), 7.07 (1H, br-s), 7.48 (1H, t, J = 8.3 Hz), 7.61-7.62 (2H, m), 7.86 (1H, s), 8.02 (1H, s), 8.15 (1H, dd, J = 8.8 Hz, 2.5 Hz), 8.33 (1H, d, J = 2.5 Hz)
944	δ 2.35 (3H, s), 4.85 (2H, s), 6.55 (1H, septet, J = 6.4 Hz), 6.89 (1H, s), 7.08 (1H, br-s), 7.49 (1H, t, J = 7.8 Hz), 7.59 (1H, s), 7.63 (2H, d, J = 8.3 Hz), 8.05 (1H, s), 8.40 (1H, s)
945	δ 2.34 (3H, s), 4.85 (2H, s), 7.17 (1H, br-s), 7.22-7.26 (1H, m), 7.49 (1H, t, J = 7.8 Hz), 7.60-7.66 (2H, m), 7.75 (1H, br-s), 8.07 (1H, br-s), 8.73 (1H, br-s)
946	δ4.86 (2H, s), 7.13 (1H, br-s), 7.52 (1H, t, J = 8.3 Hz), 7.67 (1H, d, J = 8.3 Hz), 7.74 (1H, d, J = 8.3 Hz), 8.02 (1H, s), 8.05 (1H, s), 8.66 (1H, s), 8.70 (1H, br-s)
947	δ 2.36 (3H, s), 5.05 (2H, s), 7.16 (1H, br-s), 7.25 (1H, s), 7.51 (1H, t, J = 7.8 Hz), 7.68-7.70 (3H, m), 8.08 (1H, br-s)
948	δ4.86 (2H, s), 6.30 (1H, septet, J = 6.4 Hz), 7.00 (1H, d, J = 8.8 Hz), 7.04 (1H, br-s), 7.52 (1H, t, J = 7.8 Hz), 7.63 (1H, dd, J = 7.8 Hz, 1.5 Hz), 7.70 (1H, d, J = 7.8 Hz), 8.04 (1H, br-s), 8.27 (1H, br-s), 8.83 (1H, d, J = 8.8 Hz)
992	δ 2.37 (3H, s), 4.85 (2H, s), 6.33 (1H, septet, J = 5.8 Hz), 6.87 (1H, s), 7.05 (1H, br-s), 7.49-7.53 (2H, m), 7.66-7.68 (2H, m), 8.05 (1H, s)
1010	δ1.33 (6H, d, J = 6.4 Hz), 2.37 (3H, s), 5.04 (1H, septet, J = 6.4 Hz), 6.34 (1H, septet, J = 6.4 Hz), 6.72 (1H, br-s), 6.88 (1H, s), 7.45 (1H, t, J = 7.8 Hz), 7.58-7.64 (3H, m), 8.05 (1H, s)
1039	δ 2.38 (3H, s), 4.86 (2H, s), 6.34 (1H, septet), 6.89 (1H, s), 7.09 (1H, br-s), 7.51 (1H, t, J = 7.8 Hz), 7.57 (1H, br-s), 7.66 (1H, br-s), 7.68 (1H, d, J = 7.8 Hz), 8.07 (1H, s)
1086	δ 2.37 (3H, s), 4.85 (2H, s), 6.33 (1H, septet, J = 5.8 Hz), 6.87 (1H, s), 7.05 (1H, br-s), 7.49-7.53 (2H, m), 7.66-7.68 (2H, m), 8.05 (1H, s)
1104	δ1.32 (6H, d, J = 6.4 Hz), 2.29 (3H, s), 2.41 (3H, s), 5.04 (1H, septet, J = 6.4 Hz), 6.58 (1H, septet, J = 6.4 Hz), 6.72 (2H, s), 7.37-7.46 (2H, m), 7.53-7.57 (1H, m), 7.60 (1H, d, J = 7.8 Hz), 8.05 (1H, br-s)
1180	δ 2.46 (3H, s), 4.86 (2H, s), 7.11 (1H, s), 7.51-7.86 (5H, m), 8.10 (1H, br-s)
1198	δ 1.31(6H, d, J = 6.3 Hz), 2.40(3H, s), 5.03(1H, septet, J = 6.3 Hz), 6.72(1H, s), 7.42-7.47(2H, m), 7.56(1H, s), 7.60-7.63(2H, m), 7.74(1H, s), 8.03(1H, s)
1227	δ 2.41(3H, s), 4.85(2H, s), 7.05(1H, br), 7.44(1H, s), 7.51(1H, t, J = 8.1 Hz), 7.57(1H, s), 7.67-7.70(3H, m), 8.05(1H, s)
1245	δ 1.31(6H, d, J = 6.1 Hz), 2.42(3H, s), 5.04(1H, septet, J = 6.1 Hz), 6.71(1H, s), 7.45(1H, d, J = 8.1 Hz), 7.48(1H, s), 7.61-7.64(2H, m), 7.72-7.74(2H, m), 8.04(1H, s)
1274	δ 2.43(3H, s), 4.86(2H, s), 7.08(1H, br), 7.48-7.53(2H, m), 7.68-7.73(4H, m), 8.06(1H, s)
1292	δ 1.32(6H, d, J = 6.3 Hz), 2.42(3H, s), 5.04(1H, septet, J = 6.3 Hz), 6.72(1H, s), 7.44-7.52(2H, m), 7.62-7.66(3H, m), 7.93(1H, s), 8.04(1H, s)
1321	δ 2.43(3H, s), 4.86(2H, s), 7.08(1H, br), 7.50-7.54(2H, m), 7.63(1H, s), 7.70-7.72(2H, m), 7.94(1H, s), 8.08(1H, s)
1361	δ 0.87(3H, t, J = 7.3 Hz), 1.53-1.63(2H, m), 2.44-2.56(2H, m), 2.64(2H, t, J = 7.8 Hz), 4.38(2H, t, J = 6.3 Hz), 7.16(1H, s), 7.38(1H, t, J = 7.8 Hz), 7.48(1H, s), 7.61-7.64(2H, m), 7.91-7.94(2H, m), 8.00(1H, s)
1368	δ 0.93(3H, t, J = 7.3 Hz), 1.59-1.69(2H, m), 2.71(2H, t, J = 7.8 Hz), 4.86(2H, s), 7.11(1H, br), 7.49-7.54(2H, m), 7.62(1H, s), 7.69-7.72(2H, m), 7.96(1H, d, J = 1.5 Hz), 8.07(1H, s)
1385	δ 2.35(3H, s), 2.44(3H, s), 4.86(2H, s), 6.74(1H, s), 7.34-7.38(3H, m), 7.46(1H, s), 7.52(1H, d, J = 8.8 Hz), 7.89(1H, s), 8.35(1H, d, J = 8.8 Hz)
1386	δ 1.32(6H, d, J = 6.3 Hz), 2.40(6H, s), 2.41(3H, s), 5.03(1H, septet, J = 6.3 Hz), 6.46(1H, br-s), 7.15(1H, s), 7.28-7.37(4H, m), 7.95(1H, d, J = 8.3 Hz)
1387	δ 2.40(6H, s), 2.45(3H, s), 4.86(2H, s), 6.80(1H, br), 7.16(1H, s), 7.32-7.42(4H, m), 7.85(1H, br)
1388	δ1.35(3H, t, J = 7.3 Hz), 2.36(6H, s), 4.28(2H, q, J = 7.3 Hz), 6.91(1H, s), 7.29(1H, t, J = 8.3 Hz), 7.37(2H, s), 7.74-7.79(2H, m), 8.32 (1H, br-d, J = 5.9 Hz)
1389	δ1.34 (6H, d, J = 6.3 Hz), 2.36 (6H, s), 5.07 (1H, septet, J = 6.3 Hz), 6.86 (1H, br-s), 7.30 (1H, t, J = 8.1 Hz), 7.37 (2H, s), 7.72-7.79 (2H, m), 8.32 (1H, br)
1408	δ 2.37(6H, s), 4.70(4H, dt, J = 2.0 Hz, 46.8 Hz), 5.28(1H, tt, J = 4.4 Hz, 24.9 Hz), 7.08(1H, br-s), 7.33(1H, t, J = 8.3 Hz), 7.37(2H, s), 7.76(1H, d, J = 12.2 Hz), 7.81(1H, dt, J = 1.4 Hz, 7.8 Hz), 8.29(1H, br-s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
1411	δ 2.37(6H, s), 2.51-2.62(2H, m), 4.46(2H, t, J = 6.4 Hz), 6.97(1H, br-s), 7.32(1H, t, J = 8.3 Hz), 7.37(2H, s), 7.74-7.82(2H, m), 8.28(1H, br-s)
1416	δ 2.37(6H, s), 3.76-3.79(2H, m), 4.49(2H, t, J = 5.4 Hz), 7.02(1H, br), 7.32(1H, t, J = 7.8 Hz), 7.37(2H, s), 7.74-7.81(2H, m), 8.30(1H, br)
1418	δ 2.37 (6H, s), 4.88 (2H, s), 7.21 (1H, br), 7.32-7.37 (3H, m), 7.76-7.85 (2H, m), 8.31 (1H, br)
1421	δ 2.36(6H, s), 3.60(2H, t, J = 5.9 Hz), 4.54(2H, t, J = 5.9 Hz), 7.03(1H, br), 7.32(1H, t, J = 7.8 Hz), 7.37(2H, s), 7.76-7.81(2H, m), 8.29(1H, br)
1435	δ1.35(3H, t, J = 7.3 Hz), 2.36(6H, s), 4.29(2H, q, J = 7.3 Hz), 6.89(1H, br-s), 7.30(1H, t, J = 7.8 Hz), 7.35(2H, s), 7.74-7.78(2H, m), 8.32(1H, br-s)
1455	δ 2.33(6H, s), 4.70(4H, ddd, J = 48.8 Hz, 2.4 Hz, 4.3 Hz), 5.28(1H, tt, J = 20.0, 4.3 Hz), 7.08(1H, br-s), 7.32(1H, d, J = 8.3 Hz), 7.35(2H, s), 7.75-7.83(2H, m), 8.29(1H, br-s)
1458	δ 2.36(6H, s), 2.51-2.62(2H, m), 4.47(2H, t, J = 6.3 Hz), 6.95(1H, br-s), 7.32(1H, t, J = 7.3 Hz), 7.35(2H, s), 7.74-7.82(2H, m), 8.29(1H, br-s)
1463	δ 2.36(6H, s), 3.77(2H, t, J = 5.4 Hz), 4.49(2H, t, J = 5.4 Hz), 7.03(1H, br), 7.31(1H, t, J = 8.3 Hz), 7.35(2H, s), 7.76-7.80(2H, m), 8.29(1H, br)
1465	δ 2.36(6H, s), 4.88(2H, s), 7.18(1H, br), 7.35(1H, t, J = 8.3 Hz), 7.36(2H, s), 7.75-7.85(2H, m), 8.31(1H, br)
1898	δ 1.33(6H, d, J = 6.3 Hz), 2.37(3H, s), 5.05(1H, septet, J = 6.3 Hz), 7.21(1H, br-s), 7.32(1H, d, J = 6.6 Hz), 7.39(1H, t, J = 8.1 Hz), 7.46(1H, s), 7.50-7.53(2H, m), 8.30-8.36(2H, m)
1899	δ 2.38(3H, s), 4.87(2H, s), 7.40-7.51(5H, m), 7.62(1H, s), 8.27-8.30(2H, m)
1900	δ 1.34(6H, d, J = 6.1 Hz), 2.41(6H, s), 5.05(1H, septet, J = 6.1 Hz), 7.22-7.26(2H, m), 7.31-7.40(4H, m), 8.33(1H, dd, J = 1.5 Hz, 8.1 Hz)
1901	δ 2.40(6H, s), 4.88(2H, s), 7.29(1H, s), 7.37(2H, s), 7.38-7.43(2H, m), 7.50(1H, s), 8.28(1H, d, J = 6.8 Hz)
1902	δ 4.88(2H, s), 7.39(1H, dd, J = 1.5 Hz, 7.3 Hz), 7.44-7.51(2H, m), 7.88-7.92(2H, m), 8.03(1H, s), 8.36(1H, d, J = 8.3 Hz), 8.70(1H, d, J = 8.3 Hz)
1903	δ 2.37 (3H, s), 4.88 (2H, s), 6.55 (1H, septet, J = 6.3 Hz), 6.90 (1H, s), 7.32 (1H, s), 7.41-7.48 (3H, m), 8.31 (1H, br-s), 8.49 (1H, s)
1904	δ 1.34(6H, d, J = 6.3 Hz), 2.44(6H, s), 5.05(1H, septet, J = 6.3 Hz), 7.13(1H, s), 7.25-7.28(2H, m), 7.37(2H, s), 7.41(1H, t, J = 8.3 Hz), 8.31(1H, dd, J = 1.5 Hz, 8.3 Hz)
1905	δ 2.44(6H, s), 4.88(2H, s), 7.15(1H, br), 7.33-7.37(3H, m), 7.43-7.53(2H, m), 8.25(1H, d, J = 8.3 Hz)
1906	δ 2.40(3H, s), 4.86(2H, s), 7.05-7.10(2H, m), 7.47(1H, s), 7.53(1H, d, J = 8.8 Hz), 7.58(1H, br), 8.22(1H, br), 8.28(1H, d, J = 8.8 Hz).
1907	δ 2.40(6H, s), 4.86(2H, s), 7.00-7.11(3H, m), 7.37(2H, s), 8.18(1H, br)
1908	δ 1.33(6H, d, J = 6.3 Hz), 2.39(6H, s), 5.04(1H, septet, J = 6.3 Hz), 6.81(1H, br), 7.30(1H, br), 7.37(2H, s), 8.23(1H, br)
1909	δ 1.33(6H, d, J = 6.1 Hz), 2.34(3H, s), 2.42(3H, s), 5.05(1H, septet, J = 6.1 Hz), 6.46(1H, br), 7.30(1H, d, J = 8.1 Hz), 7.45(1H, s), 7.49(1H, d, J = 8.5 Hz), 7.60(1H, dd, J = 1.7 Hz, 8.1 Hz), 7.83(1H, s), 8.27(1H, d, J = 8.5 Hz), 8.46(1H, br)
1910	δ 2.39(3H, s), 2.42(3H, s), 4.86(2H, s), 6.77(1H, br), 7.35(1H, d, J = 8.1 Hz), 7.46(1H, s), 7.50(1H, d, J = 8.8 Hz), 7.65(1H, dd, J = 2.0 Hz, 8.1 Hz), 7.80(1H, s), 8.27(1H, d, J = 8.8 Hz), 8.36(1H, br)
1911	δ 1.33(6H, d, J = 6.3 Hz), 2.34(9H, s), 5.04(1H, septet, J = 6.3 Hz), 6.48(1H, br-s), 7.31(1H, d, J = 7.8 Hz), 7.34(2H, s), 7.55(1H, s), 7.64(1H, dd, J = 1.5 Hz, 7.8 Hz), 8.46(1H, s)
1912	δ 2.34(6H, s), 2.40(3H, s), 4.86(2H, s), 6.78(1H, br), 7.34-7.36(3H, m), 7.50(1H, s), 7.69(1H, dd, J = 1.5 Hz, 7.8 Hz), 8.36(1H, s)
1913	δ1.32(6H, d, J = 6.3 Hz), 2.43(3H, s), 3.96(3H, s), 5.05(1H, sept., J = 6.3 Hz), 6.98(1H, d, J = 8.5 Hz), 7.24(1H, s), 7.44(1H, s), 7.49(1H, d, J = 8.5 Hz), 7.71(1H, dd, J = 2.2 Hz, 8.5 Hz), 7.82(1H, s), 8.25(1H, d, J = 8.5 Hz), 8.68(1H, s)
1914	δ 2.43(3H, s), 4.00(3H, s), 4.87(2H, s), 7.02(1H, d, J = 8.5 Hz), 7.45(1H, s), 7.50(1H, d, J = 8.5 Hz), 7.54(1H, s), 7.74-7.79(2H, m), 8.28(1H, d, J = 8.5 Hz), 8.66(1H, s)
1915	δ 1.33(6H, d, J = 6.3 Hz), 2.42(3H, s), 5.00-5.10(1H, m), 6.91(1H, br), 7.20(1H, dd, J = 8.5 Hz, 10.5 Hz), 7.46(1H, s), 7.49(1H, d, J = 8.8 Hz), 7.62-7.66(1H, m), 7.82(1H, s), 8.20(1H, d, J = 8.8 Hz), 8.71(1H, d, J = 6.1 Hz)
1916	δ 2.46(3H, s), 4.87(2H, s), 7.23-7.29(2H, m), 7.47(1H, s), 7.51(1H, d, J = 8.8 Hz), 7.68-7.73(1H, m), 7.78(1H, s), 8.23(1H, d, J = 8.5 Hz), 8.68(1H, d, J = 6.1 Hz)
1917	δ 1.33(6H, d, J = 6.3 Hz), 2.34(6H, s), 5.04(1H, septet, J = 6.3 Hz), 6.91(1H, s), 7.20(1H, dd, J = 8.5 Hz, 10.5 Hz), 7.35(2H, s), 7.56(1H, s), 7.66-7.70(1H, m), 8.71(1H, br-d, J = 6.6 Hz)
1918	δ 2.34(6H, s), 4.87(2H, s), 7.22(1H, dd, J = 8.8 Hz, 10.5 Hz), 7.32(2H, s), 7.75-7.79(1H, m), 7.87(1H, s), 8.56(1H, s), 8.63(1H, br)
1919	δ1.34(6H, d, J = 6.3 Hz), 2.43(3H, s), 5.06(1H, septet, J = 6.3 Hz), 7.21(1H, s), 7.46(1H, s), 7.49-7.52(2H, m), 7.61(1H, dd, J = 2.2 Hz, 8.5 Hz), 7.82(1H, s), 8.24(1H, d, J = 8.5 Hz), 8.78(1H, d, J = 2.2 Hz)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
1920	δ 2.43(3H, s), 4.88(2H, s), 7.47(1H, s), 7.50-7.57(3H, m), 7.66(1H, dd, J = 2.0 Hz, 8.3 Hz), 7.78(1H, s), 8.26(1H, d, J = 8.3 Hz), 8.72(1H, s)
1921	δ 1.34(6H, d, J = 6.1 Hz), 2.34(6H, s), 5.05(1H, septet, J = 6.1 Hz), 7.23(1H, s), 7.35(2H, s), 7.51(1H, d, J = 8.3 Hz), 7.63-7.69(2H, m), 8.76(1H, s)
1922	δ 2.35(6H, s), 4.88(2H, s), 7.36(2H, s), 7.50(1H, br), 7.53-7.59(2H, m), 7.70(1H, dd, J = 2.0 Hz, 8.3 Hz), 8.72(1H, s)
1923	δ 2.35(6H, s), 2.45(3H, s), 4.84(2H, s), 7.00(1H, br), 7.36(2H, s), 7.41(1H, s), 7.48(2H, s), 7.83(1H, s)
1924	δ 1.33(6H, d, J = 6.1 Hz), 2.46(3H, s), 5.05(1H, septet, J = 6.1 Hz), 6.89(1H, br-s), 7.48(1H, s), 7.51(1H, d, J = 9.1 Hz), 7.79(2H, s), 7.89(1H, s), 8.18(1H, d, J = 9.1 Hz), 8.19(1H, s)
1925	δ 2.43(3H, s), 4.86(2H, s), 7.31(1H, br-s), 7.49(1H, s), 7.52(1H, d, J = 8.8 Hz), 7.78(1H, s), 7.85(1H, s), 7.94(1H, s), 8.18(1H, d, J = 8.8 Hz), 8.24(1H, s)
1926	δ 1.32(6H, d, J = 6.1 Hz), 2.34(6H, s), 5.04(1H, septet, J = 6.1 Hz), 6.87(1H, s), 7.36(2H, s), 7.50(1H, s), 7.83(1H, s), 7.90(1H, s), 8.20(1H, s)
1927	δ 2.35(6H, s), 4.86(2H, s), 7.26(1H, s), 7.37(2H, s), 7.48(1H, s), 7.89(1H, s), 7.97(1H, s), 8.24(1H, s)
1928	δ1.31(6H, d, J = 6.3 Hz), 2.33(6H, s), 3.89(2H, br.), 4.97-5.04(1H, m), 6.59(1H, s), 6.92(1H, s), 7.02(1H, s), 7.23-7.26(1H, m), 7.34(2H, s), 7.39(1H, br)
1929	δ 2.35(6H, s), 3.04(6H, s), 4.84(2H, s), 6.94(2H, br), 7.04(1H, s), 7.30(1H, s), 7.349(2H, s), 7.404(1H, s)
1930	δ 1.30(6H, d, J = 6.3 Hz), 2.37(3H, s), 2.48(3H, s), 5.02(1H, septet, J = 6.3 Hz), 6.57(1H, s), 7.20-7.28(2H, m), 7.44(2H, s), 7.50(1H, d, J = 8.3 Hz), 7.76(1H, s), 8.28(1H, d, J = 9.1 Hz)
1931	δ 2.39(3H, s), 2.48(3H, s), 4.84(2H, s), 7.22(1H, d, J = 8.3 Hz), 7.44-7.54(3H, m), 7.80(1H, s), 8.13(1H, d, J = 8.1 Hz), 8.20(1H, s), 9.04(1H, s)
1932	δ 1.30(6H, d, J = 6.1 Hz), 2.39(6H, s), 2.48(3H, s), 5.02(1H, septet, J = 6.1 Hz), 6.63(1H, s), 7.19-7.25(3H, m), 7.36(2H, s), 7.81(1H, s)
1933	δ 2.40(6H, s), 2.50(3H, s), 4.84(2H, s), 7.01(1H, br-s), 7.18(1H, s), 7.24-7.27(1H, m), 7.31-7.34(1H, m), 7.37(2H, s), 7.82(1H, s)
1934	δ 1.31(6H, d, J = 6.1 Hz), 2.41(3H, s), 5.04(1H, septet, J = 6.1 Hz), 6.69(1H, s), 7.16-7.21(1H, m), 7.46(1H, s), 7.5(1H, d, J = 8.8 Hz), 7.88(1H, dd, J = 2.9 Hz, 6.6 Hz), 7.96(1H, br), 8.40(1H, d, J = 8.8 Hz), 8.57(1H, d, J = 17.6 Hz)
1935	δ 2.42(3H, s), 4.84(2H, s), 7.04(1H, br), 7.20-7.27(1H, m), 7.46(1H, s), 7.51(1H, d, J = 8.5 Hz), 7.94(1H, br), 8.01(1H, dd, J = 2.9 Hz, 6.6 Hz), 8.40(1H, d, J = 8.5 Hz), 8.57(1H, br-d, J = 17.6 Hz)
1936	δ 1.31(6H, d, J = 6.3 Hz), 2.35(6H, s), 5.02(1H, septet, J = 6.3 Hz), 6.70(1H, s), 7.19(1H, dd, J = 9.0 Hz, 11.2 Hz), 7.36(2H, s), 7.83(1H, dd, J = 2.9 Hz, 6.6 Hz), 7.99(1H, br), 8.01(1H, d, J = 5.1 Hz)
1937	δ 2.36(6H, s), 4.84(2H, s), 7.10(1H, br-s), 7.21-7.26(1H, m), 7.36(2H, s), 7.94-8.03(3H, m)
1938	δ 1.31(6H, d, J = 6.3 Hz), 2.41(3H, s), 5.03(1H, septet, J = 6.3 Hz), 6.68(1H, s), 7.40(1H, d, J = 8.8 Hz), 7.46(1H, s), 7.51(1H, d, J = 8.5 Hz), 7.67(1H, d, J = 8.5 Hz), 7.78(1H, d, J = 2.7 Hz), 8.06(1H, s), 8.32(1H, d, J = 8.8 Hz)
1939	δ 2.42(3H, s), 4.84(2H, s), 7.38(1H, d, J = 8.8 Hz), 7.45-7.49(2H, m), 7.72(1H, d, J = 7.3 Hz), 7.93(1H, s), 8.17(1H, d, J = 8.5 Hz), 8.52(1H, s), 9.43(1H, s)
1940	δ 1.31(6H, d, J = 6.1 Hz), 2.40(6H, s), 5.03(1H, septet, J = 6.1 Hz), 6.70(1H, s), 7.36(2H, s), 7.41(1H, d, J = 8.8 Hz), 7.63-7.66(2H, m), 7.75(1H, d, J = 2.7 Hz)
1941	δ 2.40(6H, s), 4.84(2H, s), 7.08(1H, br), 7.37(2H, s), 7.46(1H, d, J = 8.8 Hz), 7.64-7.70(2H, m), 7.82(1H, d, J = 2.7 Hz)
1942	δ1.31(6H, d, J = 6.3 Hz), 2.41(3H, s), 4.97-5.07(1H, m), 6.70(1H, s), 7.45-7.58(4H, m), 7.72-7.75(2H, m), 8.30(1H, d, J = 8.8 Hz)
1943	δ 2.44(3H, s), 4.85(2H, s), 7.43-7.47(2H, m), 7.54(1H, d, J = 8.5 Hz), 7.61(1H, d, J = 8.5 Hz), 7.86(1H, s), 7.99(1H, d, J = 8.1 Hz), 9.09(1H, s), 9.89(1H, s)
1944	δ 2.43(3H, s), 4.84(2H, s), 7.36(1H, s), 7.44(1H, s), 7.47(1H, d, J = 8.5 Hz), 7.79(2H, d, J = 8.5 Hz), 8.08(1H, d, J = 8.5 Hz), 8.62(1H, s), 9.65(1H, s)
1945	δ 1.31(6H, d, J = 6.3 Hz), 2.45(6H, s), 5.03(1H, septet, J = 6.3 Hz), 6.66(1H, s), 7.16-7.21(2H, m), 7.36(2H, s), 7.76(1H, s), 7.82(1H, dd, J = 2.7 Hz, 8.8 Hz)
1946	δ1.52(9H, s), 2.41(3H, s), 6.58(1H, s), 7.19(1H, dd, J = 2.7 Hz, 8.5 Hz), 7.41(1H, s), 7.45(1H, s), 7.51(1H, d, J = 7.1 Hz), 7.69(1H, s), 7.79(1H, d, J = 8.5 Hz), 8.30(1H, d, J = 8.5 Hz)
1947	δ 2.44(3H, s), 2.45(3H, s), 4.83(2H, d, J = 1.7 Hz), 7.00(1H, br), 7.07-7.27(2H, m), 7.36(2H, s), 7.74-7.77(1H, d, J = 10.3 Hz), 7.86(1H, dd, J = 8.5 Hz, 10.3 Hz)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
1948	δ3.45(3H, s), 4.80(2H, s), 7.53-7.57(2H, m), 7.68(1H, s), 7.82(1H, d, J = 7.8 Hz), 7.93-7.95(3H, m)
1949	δ 2.30(3H, s), 3.41(3H, s), 4.77(2H, s), 6.77(1H, s), 6.95-7.00(1H, m), 7.07-7.16(2H, m), 7.29-7.41(4H, m)
1950	δ 1.26(6H, d, J = 5.9 Hz), 2.28(6H, s), 3.33(3H, s), 4.96(1H, septet, J = 5.9 Hz), 6.47(1H, s), 6.88(1H, d, J = 7.8 Hz), 7.04(1H, t, J = 7.8 Hz), 7.21(2H, s), 7.23-7.47(2H, m)
1951	δ 2.29(6H, s), 3.34(3H, s), 4.77(2H, s), 6.81(1H, br), 6.99(1H, d, J = 7.8 Hz), 7.10(1H, t, J = 7.8 Hz), 7.22(2H, s), 7.24-7.26(1H, m), 7.42(1H, s)
1954	δ 1.26(6H, d, J = 6.3 Hz), 2.34(3H, s), 3.34(3H, s), 4.97(1H, septet, J = 6.3 Hz), 6.46(1H, s), 6.99(1H, d, J = 7.8 Hz), 7.07(1H, t, J = 7.8 Hz), 7.28-7.31(2H, m), 7.40-7.44(1H, m), 7.62(1H, s)
1955	δ 2.35(3H, s), 3.36(3H, s), 4.77(2H, s), 7.02-7.13(3H, m), 7.29-7.37(2H, m), 7.44-7.52(1H, m), 7.62(1H, s)
1956	δ 1.26(3H, t, J = 7.3 Hz), 2.29(6H, s), 3.86(2H, q, J = 7.3 Hz), 4.76(2H, s), 6.86(1H, br), 6.92-6.95(1H, m), 7.08(1H, t, J = 8.1 Hz), 7.22(2H, s), 7.23-7.30(1H, m), 7.38(1H, t, J = 2.0 Hz)
1957	δ 1.46(6H, d, J = 6.3 Hz), 2.07(6H, s), 4.77(2H, s), 5.40(1H, septet, J = 6.3 Hz), 6.78(1H, br), 6.98(1H, d, J = 7.8 Hz), 7.14-7.19(1H, m), 7.17(2H, s), 7.29(1H, s), 7.46(1H, d, J = 7.8 Hz)
1958	δ 2.34 (6H, s), 3.45 (3H, s), 4.80 (2H, s), 7.36 (2H, s), 7.50-7.56 (3H, m), 7.78 (1H, d, J = 6.1 Hz), 7.90 (1H, s)
1959	(DMSO-d_6) δ 2.32 (6H, s), 3.30 (3H, s), 4.86 (2H, s), 6.83 (1H, t, J = 7.4 Hz), 7.40 (1H, t, J = 7.4 Hz), 7.44 (2H, s), 7.67 (1H, t, J = 7.4 Hz), 10.05 (1H, s)
1960	δ1.29(6H, d, J = 6.3 Hz), 2.35(6H, s), 3.35(3H, s), 3.38(3H, s), 4.97-5.03(1H, m), 7.36(2H, s), 7.58(1H, s), 7.76(1H, s), 7.84(1H, s), 8.56(1H, s)
1961	(DMSO-d_6) δ 2.28(6H, s), 2.33(3H, s), 7.44(2H, s), 7.48(1H, t, J = 7.8 Hz), 7.66-7.75(2H, m), 8.11(1H, t, J = 2.0 Hz), 9.96(1H, s), 10.56(1H, s)
1962	(DMSO-d_6) δ1.34 (3H, t, J = 7.3 Hz), 2.34 (6H, s), 2.96 (2H, q, J = 7.3 Hz), 7.33 (2H, s), 7.41 (1H, t, J = 7.8 Hz), 7.67 (1H, d, J = 7.8 Hz), 7.83-7.85 (1H, m), 8.11 (1H, d, J = 2.0 Hz), 8.79 (1H, s), 9.58 (1H, s)
1963	δ 1.32(6H, d, J = 6.6 Hz), 2.37(6H, s), 5.00-5.06(1H, m), 6.69(1H, s), 7.35-7.65(5H, m), 8.09(1H, s), 8.72(1H, s)
1964	δ 2.37(6H, s), 4.85(2H, s), 7.07(1H, br.), 7.39(2H, s), 7.45(1H, t, J = 8.1 Hz), 7.61-7.68(2H, m), 8.11(1H, s), 8.69(1H, s)
1967	δ1.34 (6H, d, J = 6.3 Hz), 2.34 (6H, s), 5.09 (1H, septet, J = 6.3 Hz), 7.29 (1H, br-s), 7.35 (2H, s), 7.91 (1H, t, J = 7.8 Hz), 7.97 (1H, d, J = 7.8 Hz), 8.21 (1H, d, J = 7.8 Hz), 9.19 (1H, br-s)
1968	δ 2.35 (6H, s), 4.89 (2H, s), 7.36 (2H, s), 7.63(1H, br-s), 7.97 (1H, dd, J = 8.3 Hz, 7.6 Hz), 8.05 (1H, d, J = 7.6 Hz), 8.21 (1H, d, J = 8.3 Hz), 9.17 (1H, br-s)
1969	δ 2.35 (6H, s), 3.77-3.80 (2H, m), 4.48-4.52 (2H, m), 7.36 (2H, s), 7.46 (1H, br-s), 7.94 (1H, t, J = 7.8 Hz), 8.02 (1H, dd, J = 7.8 Hz, 1.0 Hz), 8.19 (1H, dd, J = 7.8 Hz, 1.0 Hz), 9.17 (1H, br-s)
2061	δ1.36 (6H, d, J = 6.4 Hz), 2.52 (6H, s), 5.07-5.14 (1H, m), 7.36 (2H, s), 7.56 (1H, t, J = 8.2 Hz), 8.15 (1H, dd, J = 8.2 Hz, 1.9 Hz), 8.44 (1H, dd, J = 8.2 Hz, 1.9 Hz), 9.45(1H, br-s), 12.9 (1H, br-s)
2062	δ 2.37 (6H, s), 4.91 (2H, s), 7.36 (2H, s), 7.61 (1H, t, J = 8.3 Hz), 8.23 (1H, dd, J = 8.3 Hz, 1.9 Hz), 8.45 (1H, dd, J = 8.3 Hz, 1.9 Hz), 9.81 (1H, br-s), 12.7 (1H, br-s)
2157	δ 2.36 (6H, s), 4.90 (2H, s), 7.38 (2H, s), 7.52-7.60 (2H, m), 8.44 (1H, s), 8.56 (1H, d, J = 5.4 Hz), 8.58 (1H, br-s)
2164	δ1.33 (6H, d, J = 5.8 Hz), 2.35 (6H, s), 5.03-5.07 (1H, m), 7.06 (1H, s), 7.35 (2H, s), 7.93 (1H, d, J = 2.4 Hz), 7.95 (1H, d, J = 5.9 Hz, 2.4 Hz), 8.49 (1H, d, J = 5.9 Hz), 9.58 (1H, br-s)
2165	(DMSO-d_6) δ 2.26 (6H, s), 5.02 (2H, s), 7.43 (2H, s), 7.75 (1H, dd, J = 5.4 Hz, 2.0 Hz), 8.31 (1H, d, J = 2.0 Hz), 8.60 (1H, d, J = 5.4 Hz), 10.41 (1H, br-s), 10.92 (1H, br-s)
2167	(DMSO-d_6) δ 2.36 (6H, s), 4.90 (2H, s), 7.34 (2H, s), 7.94 (1H, dd, J = 7.3 Hz, 3.4 Hz), 8.31 (1H, d, J = 7.3 Hz), 8.60 (1H, d, J = 3.4 Hz), 10.90 (1H, br-s), 13.65 (1H, br-s)
2168	(DMSO-d_6) δ 2.30(6H, s), 3.61(3H, s), 5.03(2H, s), 7.47(2H, s), 7.92(1H, d, J = 7.6 Hz), 7.98(1H, d, J = 7.6 Hz), 8.08(1H, t, J = 7.6 Hz), 10.18(1H, s)
I-1	δ 2.34(6H, s), 3.87(2H, br-s), 6.86-6.89(1H, m), 7.21-7.30(3H, m), 7.33(2H, s), 7.39(1H, s)
I-2	δ 3.87(2H, br), 6.84-7.00(1H, m), 7.14-7.17(1H, m), 7.20(1H, t, J = 2.0 Hz), 7.24-7.28(1H, m), 7.60(2H, d, J = 8.8 Hz), 7.78(2H, d, J = 8.8 Hz), 7.90(1H, br-s)
I-3	δ 2.51 (3H, d, J = 8.8 Hz), 3.86 (2H, br-s), 6.83-8.68 (1H, m), 7.13-7.25 (3H, m), 7.26-7.63 (3H, m), 7.90 (1H, br-s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
I-4	δ3.87 (2H, br-s), 3.89 (3H, s), 6.86-6.88 (1H, m), 6.99 (1H, dd, J = 8.6 Hz, 2.0 Hz), 7.15-7.20 (2H, m), 7.27 (1H, t, J = 7.8 Hz), 7.51 (1H, d, J = 8.6 Hz), 7.83 (1H, s), 7.93 (1H, s)
I-5	δ3.89 (2H, br-s), 6.86-6.89 (1H, m), 7.12-7.30 (3H, m), 7.52-7.59 (2H, m), 7.76-7.93 (2H, m)
I-6	δ 2.43(3H, s), 3.83(2H, br), 6.85-6.88(1H, m), 7.14-7.17(1H, m), 7.21-7.29(2H, m), 7.45(1H, s), 7.49(1H, d, J = 8.8 Hz), 7.76(1H, br), 8.27(1H, d, J = 8.8 Hz)
I-7	δ 2.34(6H, s), 3.87(2H, br), 6.86-6.89(1H, m), 7.20-7.35(6H, m)
I-8	δ 2.42(3H, s), 3.79(2H, br-s), 6.80(1H, dd, J = 2.2 Hz, 7.8 Hz), 6.90(1H, d, J = 7.8 Hz), 7.05(1H, s), 7.15(1H, t, J = 7.8 Hz), 7.26-7.44(7H, m), 7.53(1H, s)
I-9	δ 2.33 (3H, s), 2.52 (3H, d, J = 8.8 Hz), 3.89 (2H, br-s), 6.86-6.89 (1H, m), 7.14-7.16 (1H, m), 7.22 (1H, s), 7.28-7.30 (2H, m), 7.65 (1H, br-s), 8.11 (1H, s)
I-10	δ 2.28 (3H, s), 2.46 (3H, d, J = 6.1 Hz), 3.88 (2H, br-s), 6.84-6.89 (1H, m), 7.15-7.19 (1H, m), 7.23-7.29 (2H, m), 7.41 (1H, d, J = 9.1 Hz), 7.73 (1H, br-s), 7.81 (1H, d, J = 9.1 Hz)
I-12	δ 2.60 (3H, s), 3.92 (2H, br-s), 6.89-6.92 (1H, m), 7.24-7.32 (3H, m), 7.46 (1H, s), 7.76 (1H, br-s)
I-13	δ 2.27(6H, s), 3.31(3H, s), 6.40-6.43(1H, m), 6.54-6.58(1H, m), 6.71(1H, t, J = 2.0 Hz), 6.76-6.86(1H, m), 7.22(2H, s)
I-14	δ 1.45(6H, d, J = 6.3 Hz), 2.07(6H, s), 3.53(2H, br), 5.37(1H, septet, J = 6.3 Hz), 6.56-6.63(3H, m), 6.96(1H, t, J = 7.8 Hz), 7.16(2H, s)
I-15	δ 1.32(3H, t, J = 7.6 Hz), 2.72(2H, q, J = 7.6 Hz), 3.88(2H, br), 6.85-6.89(1H, m), 7.13-7.14(1H, m), 7.22-7.30(2H, m), 7.46(1H, s), 7.50(1H, d, J = 8.8 Hz), 7.80(1H, br-s), 8.29(1H, d, J = 8.8 Hz)
I-16	δ 1.17(3H, t, J = 7.6 Hz), 2.28(3H, s), 2.65(2H, q, J = 7.6 Hz), 3.85(2H, br-s), 6.82-6.85(1H, m), 7.21-7.23(3H, m), 7.34(2H, s), 7.64(1H, s)
I-17	δ 1.22(6H, t, J = 7.6 Hz), 2.69(4H, q, J = 7.6 Hz), 3.86(2H, br-s), 6.86-6.89(1H, m), 7.15-7.36(4H, m), 7.38(2H, s)
I-18	δ 1.23(3H, t, J = 7.3 Hz), 2.76(2H, q, J = 7.3 Hz), 3.88(2H, br-s), 6.88-6.91(1H, m), 7.26-7.32(3H, m), 7.50(1H, s), 7.53(1H, s), 7.95(1H, d, J = 1.5 Hz)
I-19	δ 1.00(3H, t, J = 7.3 Hz), 1.65-1.75(2H, m), 2.67(2H, t, J = 7.3 Hz), 3.89(2H, br), 6.84-6.88(1H, m), 7.11-7.29(3H, m), 7.43(1H, s), 7.49(1H, d, J = 8.5 Hz), 7.85(1H, br-s), 8.27(1H, d, J = 7.8 Hz)
I-20	δ1.22 (6H, d, J = 6.8 Hz), 2.32 (3H, s), 3.17 (1H, septet, J = 6.8 Hz), 3.87 (2H, br-s), 6.85-6.93 (1H, m), 7.20-7.29 (3H, m), 7.35 (1H, s), 7.40-7.45 (2H, m).
I-21	δ 2.35(3H, s), 3.85(5H, s), 6.85-6.89(1H, m), 6.95(1H, s), 7.13(1H, s), 7.23-7.30(3H, m), 7.62(1H, s)
I-22	δ 1.25(3H, t, J = 7.6 Hz), 2.76(2H, q, J = 7.6 Hz), 3.88(2H, br-s), 6.87-6.91(1H, m), 7.24-7.31(3H, m), 7.47(1H, s), 7.55(1H, s), 7.57(1H, s)
I-23	δ 2.62 (3H, d, J = 6.4 Hz), 3.91 (2H, br-s), 6.89 (1H, d, J = 8.0 Hz), 7.20-7.32 (4H, m), 7.49 (1H, d, J = 9.0 Hz), 8.58-8.60 (1H, m)
I-24	δ3.91 (2H, br-s), 3.92 (3H, s), 6.89-6.92 (1H, m), 7.21-7.33 (3H, m), 7.59 (1H, d, J = 1.2 Hz), 8.50 (1H, s), 8.54 (1H, s)
I-25	δ 2.35 (3H, s), 2.57 (3H, d, J = 6.8 Hz), 3.88 (2H, br-s), 6.88-6.91 (1H, m), 7.25-7.34 (4H, m), 7.67 (1H, s)
I-26	δ 2.41(3H, s), 3.88(2H, br-s), 6.87-6.91(1H, m), 7.25-7.31(3H, m), 7.47(1H, s), 7.65(1H, s), 7.72(1H, s)
I-27	δ 1.23(3H, t, J = 7.3 Hz), 2.74(2H, q, J = 7.3 Hz), 3.87(2H, br-s), 6.86-6.91(1H, m), 7.25-7.31(3H, m), 7.50(1H, s), 7.59(1H, s), 7.73(1H, d, J = 1.5 Hz)
I-28	(DMSO-d_6) δ 0.84(3H, t, J = 7.3 Hz), 1.48-1.58(2H, m), 2.66(2H, t, J = 7.3 Hz), 5.36(2H, br-s), 6.77(1H, dd, J = 1.0 Hz, 7.8 Hz), 7.10-7.19(3H, m), 7.59(1H, s), 7.80(1H, s), 10.03(1H, s)
I-29	δ 0.90(3H, t, J = 7.3 Hz), 1.25-1.37(2H, m), 1.55-1.63(2H, m), 2.72(2H, t, J = 7.8 Hz), 3.89(2H, br), 6.87-6.91(1H, m), 7.24-7.31(3H, m), 7.48(1H, s), 7.55(1H, s), 7.73(1H, d, J = 1.5 Hz)
I-30	δ 2.39(3H, s), 2.66(3H, d, J = 6.9 Hz), 7.43(1H, s), 7.75-7.79(2H, m), 8.33(1H, d, J = 8.3 Hz), 8.48(1H, d, J = 8.3 Hz), 8.80(1H, s)
I-31	δ 2.41(3H, s), 3.88(2H, s), 6.86-6.91(1H, m), 7.28-7.32(3H, m), 7.49(1H, s), 7.58(1H, s), 7.93(1H, d, J = 1.2 Hz)
I-32	δ 0.91(3H, t, J = 7.3 Hz), 1.58-1.67(2H, m), 2.69(2H, t, J = 7.8 Hz), 3.88(2H, br-s), 6.87-6.90(1H, m), 7.26-7.31(3H, m), 7.50(1H, s), 7.54(1H, s), 7.95(1H, d, J = 2.0 Hz)
I-33	δ 2.33(6H, s), 3.87(2H, br-s), 6.86-6.89(1H, m), 7.21-7.29(3H, m), 7.34(2H, s), 7.52(1H, s)
I-34	δ 2.32(6H, s), 3.86(2H, br-s), 6.85-6.88(1H, m), 7.20-7.28(3H, m), 7.33(2H, s), 7.60(1H, s)
I-35	δ 3.86(2H, br), 6.84-6.87(1H, m), 7.13-7.28(3H, m), 7.63-7.64(2H, m), 7.70-7.74(2H, m), 7.91(1H, br-s)
I-36	δ 3.99(2H, br-s), 6.85-6.88(1H, m), 7.23-7.34(3H, m), 7.91(2H, s), 8.69(1H, s)
I-37	δ 3.91(2H, br), 6.88-6.91(1H, m), 7.15-7.21(2H, m), 7.29(1H, t, J = 7.8 Hz), 7.94-7.98(2H, m), 8.03(2H, d, J = 8.8 Hz), 8.11(1H, s)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
I-38	(DMSO-d_6) δ 5.39(2H, br-s), 6.77-6.80(1H, m), 7.12-7.19(3H, m), 8.49(2H, s), 10.53(1H, s)
I-39	(DMSO-d_6) δ 2.30(3H, s), 4.32(2H, br-s), 4.39(2H, q, J = 8.3 Hz), 6.79-6.86(3H, m), 7.18-7.27(2H, m), 7.45(1H, d, J = 8.8 Hz), 7.56(1H, s), 8.91(1H, br-s)
I-40	δ3.87(2H, br-s), 6.85-6.88(1H, m), 7.14(1H, dd, J = 9.3 Hz, 1.0 Hz), 7.19(1H, t, J = 2.0 Hz), 7.27(1H, t, J = 7.9 Hz), 7.64(2H, d, J = 8.7 Hz), 7.71(2H, d, J = 8.7 Hz), 7.86(1H, s)
I-42	δ3.88(2H, s), 6.90(1H, d, J = 6.8 Hz), 7.23-7.32(3H, m), 7.60(1H, s), 7.92(2H, s)
I-43	δ3.89(2H, br-s), 6.90(1H, dt, J = 2.5 Hz, 6.3 Hz), 7.25-7.32(3H, m), 7.59(1H, s), 7.72(2H, s)
I-44	δ3.89(2H, br-s), 6.90(1H, dt, J = 2.5 Hz, 6.4 Hz), 7.28-7.30(3H, m), 7.60(1H, s), 7.93(2H, s)
I-45	δ3.92(2H, s), 6.92(1H, dt, J = 1.5 Hz, 7.3 Hz), 7.23-7.30(3H, m), 7.79(1H, s), 8.04(2H, s)
I-46	δ3.89(2H, br-s), 6.90(1H, dd, J = 2.4 Hz, 4.9 Hz), 7.23-7.32(3H, m), 7.61(1H, s), 7.93(2H, s)
I-47	δ3.88(2H, br-s), 6.90(1H, d, J = 6.3 Hz), 7.23-7.32(3H, m), 7.62(1H, s), 7.92(2H, s)
I-48	δ6.90-6.94(1H, m), 7.28-7.33(3H, m), 7.73(1H, s), 8.02(1H, s), 8.25(1H, s)
I-49	δ 2.31(6H, s), 2.90(3H, s), 6.81(1H, dd, J = 1.9 Hz, 7.8 Hz), 7.15-7.18(2H, m), 7.30(1H, t, J = 7.8 Hz), 7.42(1H, s), 7.52(2H, s)
I-50	δ 2.91(3H, s), 6.82-6.85(1H, m), 7.21-7.23(2H, m), 7.32(1H, t, J = 7.8 Hz), 7.64(1H, s), 7.93(2H, s)
I-51	δ 2.29(3H, s), 2.34(3H, s), 3.82(2H, br), 6.81(1H, d, J = 8.1 Hz), 6.92(1H, d, J = 8.1 Hz), 7.11 (1H, t, J = 7.8 Hz), 7.41-7.44(2H, m), 7.50(1H, d, J = 8.3 Hz), 8.36(1H, d, J = 8.3 Hz)
I-53	δ 2.23(3H, s), 2.39(3H, s), 3.82(2H, br), 7.10-7.16(2H, m), 7.24(1H, d, J = 1.7 Hz), 7.44(1H, s), 7.49(1H, d, J = 8.1 Hz), 7.73(1H, s), 8.30(1H, d, J = 8.8 Hz)
I-55	δ 2.34(3H, s), 2.40(3H, s), 3.70(2H, br), 6.72(1H, dd, J = 2.4 Hz, 8.1 Hz), 6.83(1H, d, J = 2.4 Hz), 7.07(1H, d, J = 8.1 Hz), 7.36(1H, s), 7.44(1H, s), 7.50(1H, d, J = 8.5 Hz), 8.30(1H, d, J = 8.5 Hz)
I-56	δ 2.38(6H, s), 2.42(3H, s), 3.70(2H, br), 6.72(1H, dd, J = 2.4 Hz, 8.1 Hz), 6.89(1H, d, J = 2.4 Hz), 7.05(1H, s), 7.07(1H, d, J = 8.1 Hz), 7.36(2H, s)
I-59	δ 2.37 (6H, s), 3.90 (2H, br-s), 6.96-7.01 (1H, m), 7.10 (1H, t, J = 7.8 Hz), 7.36 (2H, s), 7.43-7.47 (1H, m), 7.86 (1H, d, J = 13.2 Hz)
I-60	δ 2.33(6H, s), 6.99(1H, dt, J = 1.5 Hz, 7.8 Hz), 7.10(1H, t, J = 7.8 Hz), 7.43(2H, s), 7.46(1H, d, J = 7.8 Hz), 7.84(1H, d, J = 13.2 Hz)
I-61	δ 2.33(6H, s), 3.93(2H, s), 7.05-7.14(1H, m), 7.17-7.21(1H, m), 7.31(1H, s), 7.35(2H, s), 7.37-7.40(1H, m)
I-62	δ 2.40(3H, s), 3.77(2H, br), 6.79-6.83(1H, m), 6.97-7.03(1H, m), 7.44-7.51(3H, m), 8.42(1H, d, J = 8.8 Hz), 8.60(1H, br-d, J = 18.8 Hz)
I-63	δ 2.35(6H, s), 3.74(2H, br-s), 6.77-6.83(1H, m), 7.01(1H, dd, J = 8.8 Hz, 11.7 Hz), 7.35(2H, s), 7.42(1H, dd, J = 2.9 Hz, 6.6 Hz), 8.01(1H, d, J = 15.6 Hz)
I-64	δ 2.38(3H, s), 4.27(2H, br), 6.89(1H, dd, J = 1.5 Hz, 8.1 Hz), 7.05(1H, d, J = 8.8 Hz), 7.18(1H, t, J = 8.1 Hz), 7.45(1H, s), 7.51(1H, d, J = 8.1 Hz), 7.60(1H, s), 8.34(1H, d, J = 8.8 Hz)
I-65	δ 2.40(6H, s), 4.27(2H, br-s), 6.88(1H, dd, J = 1.5 Hz, 7.8 Hz), 7.03(1H, dd, J = 1.5 Hz, 7.8 Hz), 7.16(1H, t, J = 7.8 Hz), 7.29(1H, s), 7.36(2H, s)
I-66	δ 2.39(3H, s), 4.27(2H, br), 7.08(1H, dd, J = 2.2 Hz, 8.3 Hz), 7.32-7.36(2H, m), 7.45(1H, s), 7.50(1H, d, J = 8.5 Hz), 7.68(1H, s), 8.24(1H, d, J = 8.5 Hz)
I-67	δ 2.33(6H, s), 4.27(2H, br-s), 7.15(1H, d, J = 8.1 Hz), 7.35-7.38(5H, m)
I-68	δ 2.41(3H, s), 3.87(2H, br), 6.73(1H, dd, J = 2.9 Hz, 8.5 Hz), 7.18(1H, d, J = 2.9 Hz), 7.21(1H, d, J = 8.8 Hz), 7.45(1H, s), 7.50(1H, d, J = 8.8 Hz), 8.12(1H, s), 8.34(1H, d, J = 8.5 Hz)
I-69	δ 2.39(6H, s), 3.85(2H, br-s), 6.72(1H, dd, J = 2.7 Hz, 8.5 Hz), 7.15(1H, d, J = 2.7 Hz), 7.22(1H, d, J = 8.5 Hz), 7.36(2H, s), 7.66(1H, s)
I-70	δ 2.43(6H, s), 4.34(2H, br), 6.86(1H, dd, J = 1.5 Hz, 8.3 Hz), 6.96(1H, dd, J = 1.5 Hz, 8.3 Hz), 7.13(1H, s), 7.19(1H, t, J = 8.3 Hz), 7.36(2H, s)
I-71	δ 2.41(3H, s), 3.87(2H, br), 6.66(1H, dd, J = 2.9 Hz, 8.5 Hz), 7.03(1H, d, J = 2.9 Hz), 7.38(1H, d, J = 8.5 Hz), 7.45(1H, s), 7.50(1H, d, J = 8.5 Hz), 7.75(1H, br-s), 8.33(1H, d, J = 8.5 Hz)
I-72	δ 2.40(3H, s), 3.94(2H, br), 7.05-7.16(2H, m), 7.36(1H, dd, J = 2.2 Hz, 8.5 Hz), 7.45(1H, s), 7.50(1H, d, J = 9.0 Hz), 7.66(1H, s), 8.24(1H, d, J = 9.0 Hz)
I-73	δ 2.41(3H, s), 3.88(2H, br-s), 6.54(1H, dd, J = 2.9 Hz, 8.5 Hz), 6.88(1H, d, J = 2.9 Hz), 7.37(1H, s), 7.45(1H, s), 7.52(1H, d, J = 8.3 Hz), 7.61(1H, d, J = 8.3 Hz), 8.32(1H, d, J = 8.5 Hz)

TABLE 9-continued

Compound No.	^{1}H-NMR($CDCl_3$, ppm)
I-74	δ 2.44(6H, s), 3.86(2H, br-s), 6.52(1H, dd, J = 2.9 Hz, 8.5 Hz), 6.91(1H, d, J = 2.9 Hz), 7.12(1H, s), 7.35(2H, s), 7.62(1H, d, J = 8.5 Hz)
I-75	δ 2.38(3H, s), 4.39(2H, s), 7.06(1H, s), 7.40(1H, d, J = 1.7 Hz), 7.43-7.50(3H, m), 7.90(1H, d, J = 9.1 Hz), 8.73(1H, s)
I-76	δ 2.27(6H, s), 4.09(2H, br-s), 7.08(1H, s), 7.33(2H, s), 7.37(1H, s), 7.43(1H, s), 7.83(1H, s)
I-77	δ 2.39(3H, s), 2.93(3H, s), 3.95(2H, br), 6.84(1H, d, J = 8.3 Hz), 7.21-7.27(2H, m), 7.44(1H, s), 7.48(1H, d, J = 8.5 Hz), 7.69(1H, s), 8.28(1H, d, J = 8.5 Hz)
I-79	δ 2.33(6H, s), 3.76(4H, br), 6.19(1H, d, J = 2.0 Hz), 6.60(2H, d, J = 2.0 Hz), 7.34(1H, br), 7.52(2H, s)
I-80	δ 2.38(3H, s), 4.65(2H, s), 7.26(1H, s), 7.34(1H, s), 7.47(1H, s), 7.52(1H, d, J = 8.5 Hz), 8.20(1H, d, J = 8.5 Hz)
I-81	δ 2.50 (3H, s), 3.90 (2H, s), 6.91-6.94 (1H, m), 7.27-7.35 (3H, m), 7.48-7.57 (2H, m), 7.70 (1H, s), 7.75 (1H, s), 8.01-8.04 (1H, m), 8.45-8.48 (1H, m)
I-82	δ1.74-1.78 (2H, m), 1.82-1.88 (2H, m), 2.72 (2H, t, J = 6.0 Hz), 3.01 (2H, q, J = 6.0 Hz), 3.88 (2H, br-s), 6.85-6.88 (1H, m), 7.14-7.16 (1H, m), 7.22-7.29 (2H, m), 7.42 (1H, d, J = 8.6 Hz), 7.70 (1H, br-s), 8.10 (1H, d, J = 9.0 Hz)
I-83	δ1.71-1.79 (4H, m), 2.81 (2H, t, J = 6.1 Hz), 2.99 (2H, q, J = 6.3 Hz), 3.87 (2H, br-s), 6.87-6.90 (1H, m), 7.24-7.29 (3H, m), 7.47-7.52 (2H, m)
I-84	δ3.87 (2H, br-s), 6.51 (1H, septet, J = 6.3 Hz), 6.85-6.88 (1H, m), 6.99 (1H, d, J = 8.7 Hz), 7.15 (1H, d, J = 7.3 Hz), 7.20 (1H, t, J = 2.0 Hz), 7.25-7.29 (1H, m), 7.75 (1H, br-s), 8.15 (1H, dd, J = 8.7 Hz, 2.4 Hz), 8.30 (1H, d, J = 2.4 Hz)
I-85	δ 2.37(3H, s), 4.27(2H, br-s), 6.55(1H, septet, J = 6.3 Hz), 6.88-6.91(2H, m), 7.06(1H, dd, J = 7.3 Hz, 1.5 Hz), 7.18(1H, t, J = 7.3 Hz), 7.37(1H, br-s), 8.50(1H, br-s)
I-86	δ 2.37(3H, s), 3.88(2H, br-s), 6.34(1H, septet, J = 6.3 Hz), 6.88(1H, s), 6.89-6.91(1H, m), 7.23-7.31(3H, m), 7.47(1H, br-s)

The insecticides containing the compounds represented by formula (1) of the present invention as active ingredients are suitable for preventing insect pests such agricultural, horticultural and stored grain insect pests which are noxious to paddy rice, fruit trees, vegetables, other crops and flowing plants, sanitary pests, or nematodes. For example, the insecticides have strong insecticidal activity on the following insect pests: Lepidoptera such as cotton caterpillar (*Diaphania indica*), oriental tea tortrix (*Homona magnanima*), cabbage webworm (*Hellulla undalis*), summer fruit tortrix (*Adoxophyes orana* fasciata), smaller tea tortrix (*Adoxophyes* sp.), apple tortrix (*Archips fuscocupreanus*), peach fruit moth (*Carposina niponensis*), Manchurian fruit moth (*Grapholita inopinata*), oriental fruit moth (*Grapholita molesta*), soybean pod borer (*Leguminivora glycinivorella*), mulberry leafroller (*Olethreutes mori*), citrus leafminer (*Phyllocnistis citrella*), persimmon fruit moth (*Stathmopoda masinissa*), tea leafroller (*Caloptilia theivora*), *Caloptilia* sp. (*Caloptilia zachrysa*), apple leafminer (*Phyllonorycter ringoniella*), pear barkminer (*Spulerrina astaurota*), small citrus dog (*Papilio xuthus*), common cabbage worm (*Pieris rapae crucivora*), tabacco budworm (*Heliothis armigera*), codling moth (*Lapsey resia pomonella*), diamondback moth (*Plutella xylostella*), apple fruit moth (*Argyresthia conjugella*), peach fruit moth (*Carposina niponensis*), rice stem borer (*Chilo suppressalis*), rice leafroller (*Cnaphalocrocis medinalis*), tabacco moth (*Ephestia elutella*), mulberry pyralid (*Glyphodes pyloalis*), paddy borer (*Scirpophaga incertulas*), rice skipper (*Parnara guttata*), rice armyworm (*Pseudaletia separata*), pink borer (*Sesamia inferens*), cabbage armyworm (*Mamestra brassicae*), common cutworm (*Spodoptera litura*), beet armyworm (*Spodoptera exigua*), black cutworm (*Agrotis ipsilon*), turnip moth (*Agrotis segetum*), beet semi-looper (*Autographa nigrisigna*), and cabbage looper (*Trichoplusia ni*); hemiptera such as aster leafHopper (*Macrosteles fascifrons*), green rice leafHopper (*Nephotettix cincticeps*), brown rice planthopper (*Nilaparvata lugens*), small brown planthopper (*Laodelphax striatellus*), whitebacked rice planthopper (*Sogatella furcifera*), citrus psylla (*Diaphorina citri*), grape whitefly (*Aleurolobus taonabae*), silverleaf whitefly (*Bermisia argentifolii*), sweetpotato whitefly (*Bemisia tabaci*), greenHouse whitefly (*Trialeurodes vaporariorum*), turnip aphid (*Lipaphis erysimi*), cotton aphid (*Aphis gossypii*), apple aphid (*Aphis Citricola*), green peach aphid (*Myzus persicae*), Indian wax scale (*Ceroplastes ceriferus*), Comstock mealybug (*Pseudococcus Comstocki*), Japanese mealybug (*Planococcus kraunhiae*), cottony citrus scale (*Pulvinaria aurantii*), camphor scale (*Pseudaonidia duplex*), San Jose scale (*Comstockaspis perniciosa*), arrowHead scale (*Unaspis yanonensis*), brownwinged green bug (*Plautia Stali*), and brown marmorated stink bug (*Halyomorpha mista*); Coleoptera such as soybean beetle (*Anomala rufocuprea*), Japanese beetle (*Popillia japonica*), cigarette beetle (*Lasioderma serricorne*), powderpost beetle (*Lyctusbrunneus*), twenty-eight-spotted ladybird (*Epilachna vigintioctopunctata*), adzuki been weevil (*Callosobruchus chinensis*), vegetable weevil (*Listroderes costirostris*), maize weevil (*Sitophilus zeamais*), boll weevil (*Anthonomus gradis gradis*), rice water weevil (*Lissorhoptrus oryzophilus*), cucurbit leaf beetle (*Aulacophora femoralis*), rice leaf beetle (*Oulema oryzae*), striped flea beetle (*Phyllotreta striolata*), pine shoot beetle (*Tomicus piniperda*), Colorado potato beetle (*Leptinotarsa decemlineata*), Mexican bean beetle (*Epilachna varivestis*), corn rootworm (*Diabrotica* sp.), yellowspotted longicorn beetle (*Psacothea hilaris*), and whitespotted longicorn beetle (*Anoplophora malasiaca*); Diptera such as melon fly (*Dacus*(Bactrocera) *dorsalis*), rice leafminer (*Agromyza oryzae*), onion maggot (*Delia antiqua*), seedcorn maggot (*Delia platura*), soybean pod gall midge (*Asphondylia* sp.), house fly (*Musca domestica*), garden pea leafminer (*Chromatomyia horticola*),

legume leafminer (*Liriomyza trifolii*), bryony leafminer (*Liriomyza bryoniae*), and common house mosquito (*Culex pipiens pipiens pallens*); Nematoda such as coffee root-lesion nematode (*Pratylenchus coffeae*), root-lesion nematode (*Pratylenchus* sp.), potato cyst nematode (*Globodera rostochiensis*), root-knot nematode (*Meloidogyne* sp.), citrus nematode (*Tylemchulus semipenetrans*), nematode (*Aphelenchus avenae*), and chrysanthemum foliar nematode (*Aphelenchoides ritzemabosi*); *Thysanoptera* such as melon thrips (*Thrips palmi*), western flower thrips (*Frankliniella occidentalis*), yellow tea thrips (*Scirtothrips dorsalis*), honeysuckle thrips (*Thrips flavus*), and onion thrips (*Thrips tabaci*); Orthoptera such as German cockroach (*Blattella germanica*), American cockroach (*Periplaneta americana*), and rice grasshopper (*Oxya yezoensis*).

The insecticides containing the compounds represented by formula (1) of the present invention as active ingredients have a significant preventive effect on the above-described insect pests noxious to lowland crops, dry field crops, fruit trees, vegetables, other crops, and flowering plants. The effect as the insecticides of the present invention can be achieved by treating paddy water, foliages or soil of paddy fields, dry fields, fruit trees, vegetables, other crops, or flowering plants before the breeding of noxious insects or at the time of observation of the breeding of noxious insects at the predicted breeding season of noxious insects.

The insecticides of the present invention are generally formed into formulations suitable for use according to a normal method for formulating agricultural/Horticultural pesticides. Namely, a compound represented by formula (1) may be mixed with an appropriate inert carrier, and if required, an auxiliary at a proper proportion, and the resultant mixture is subjected to dissolution, separation, suspension, mixing, impregnation, adsorption or adhesion to form a suitable formulation such as a suspension, an emulsion, a liquid drug, a wettable powder, a granule, a dusting powder, or a tablet. As the inert carrier used in the present invention, either a solid or a liquid may be used. Examples of a material usable as the solid carrier include soybean flour, grain flour, wood flour, bark flour, sawing flour, tobacco stalk flour, walnut sHell flour, bran, cellulose powder, a residue after plant extraction, a synthetic polymer such as a synthetic resin powder, clay (for example, kaoline, bentonite, or acid white clay), talc (for example, talc or pyrophyllite), silica (for example, diatomite, silica powder, mica, white carbon (synthetic high-dispersion silicate referred to as "hydrous silicate fine powder" or "hydrous silicate", some products containing calcium silicate as main components)), activated carbon, sulfur powder, pumice, calcined diatomite, brick powder, fly ash, sand, inorganic mineral powders such as calcium carbonate and calcium phosphate, chemical fertilizers such as ammonium sulfate, ammonium phosphate, ammonoium nitrate, urea, and ammonium chloride, and compost. These carriers are used alone or in a mixture of at least two kinds.

As a material usable as the liquid carrier, a material having a solvent ability or a material having no solvent ability but having an ability to disperse an active ingredient compound with the aid of an auxiliary is selected. Typical examples of the liquid carrier are given below, and these examples can be used alone or in a mixture of two more kinds. Examples of the liquid carrier include water, alcohols (for example, methanol, ethanol, isopropanol, butanol, and ethylene glycol); ketones (for example, acetone, methylethyl ketone, methyl isobutyl ketone, diisobutyl ketone, and cyclohexanone); ethers (for example, diethyl ether, dioxane, cellosolve, diisopropyl ether, and tetrahydrofuran); aliphatic hydrocarbons (for example, kerosine and mineral oil); aromatic hydrocarbons (for example, benzene, toluene, xylene, solvent naphtha, and alkylnaphthalene); halogenated hydrocarbons (for example, dichloromethane, chloroform, carbon tetrachloride, and chlorobenzene); esters (for example, ethyl acetate, butyl acetate, ethyl propionate, diisobutyl phthalate, dibutyl phthalate, and dioctyl phthalate); amides (for example, dimethylformamide, diethylformamide, and dimethylacetamide); and nitriles (for example, acetonitrile).

Typical examples of other auxiliaries are given below, and these examples are used alone or in combination according to purposes. The auxiliary is not necessarily used. For example, a surfactant is used for emulsifying, dispersing, solubilizing and/or wetting the active ingredient compound. Examples of the surfactant include
polyoxyethylene alkyl ether, polyoxyethylene alkyl aryl ether, polyoxyethylene higher fatty acid esters, polyoxyethylene resin acid esters, polyoxyethylene sorbitan monolaurate, polyoxyethylene sorbitan monooleate, alkylaryl sulfonate, naphthalenesulfonate, lignin-sulfonate, higher alcohol sulfates. Examples of other auxiliaries used for stabilizing dispersion of the active ingredient compound, and tackifying and/or bonding the active ingredient compound are given below. Examples of such auxiliaries include casein, gelatin, starch, methyl cellulose, carboxymethyl cellulose, gum arabic, polyvinyl alcohol, wood turpentine, bran oil, bentonite, xanthan gum, and lignin-sulfonate.

Another auxiliary for improving fluidity of a solid product can also be used. Examples of such an auxiliary include wax, stearates, and alkyl phosphates. Also, an auxiliary such as a naphthalenesulfonic acid condensate or condensed phosphate, can be used as a deflocculant for a suspending product. Furthermore, an auxiliary such as silicone oil can be used as a defoaming agent.

The compounds represented by formula (1) of the present invention are stable to light, heat and oxidation. However, an appropriate amount of an antioxidant or an ultraviolet absorber, for example, a phenol derivative such as BHT (2,6-di-t-butyl-4-methyl phenol) or BHA (butylated hydroxyanisole), a bisphenol derivative, an arylamine such as phenyl-α-naphthylamine, phenyl-3-naphthylamine, or a condensate of phenetidine and acetone, or a benzophenone compound, may be added as a stabilizer to produce compositions having a stable effect.

When a compound represented by formula (1) of the present invention is used as an active ingredient, generally, the amount thereof used in a dust is 0.5% by weight to 20% by weight, the amount in an emulsion is 5% by weight to 50% by weight, the amount in a wettable powder is 10% by weight to 90% by weight, the amount in a granule is 0.1% by weight to 20% by weight, and the amount in a flowable formulation is 10% by weight to 90% by weight. With respect to the amount of the carrier in a formulation, the amount in a dust is 60% by weight to 99% by weight, the amount in an emulsion is 40% by weight to 95% by weight, the amount in a wettable powder is 10% by weight to 90% by weight, the amount in a granule is 80% by weight to 99% by weight, and the amount in a flowable formulation is 10% by weight to 90% by weight. With respect to the amount of the auxiliary in a formulation, the amount in a dust is 0.1% by weight to 20% by weight, the amount in an emulsion is 1% by weight to 20% by weight, the amount in a wettable powder is 0.1% by weight to 20% by weight, the amount in a granule is 0.1% by weight to 20% by weight, and the amount in a flowable formulation is 0.1% by weight to 20% by weight.

In order to prevent various noxious insects, the compound of the present invention is directly used or properly diluted with water or suspended in water, and an effective amount

thereof for preventing pests is applied to crops in which the breeding of the noxious insects is predicted, or a place where the breeding of the noxious insects is undesirable. The amount of the compound used depends upon the various factors, for example, the purpose, the object insects, the growth conditions of crops, the breeding tendency of insects, weather, environmental conditions, formulations, application methods, application places, and application times. However, the content of the active ingredient used is generally 0.0001 ppm to 5000 ppm, and preferably 0.01 ppm to 1000 ppm. The amount of the active ingredient per 10 a is generally 1 g to 300 g.

An insecticide containing as an active ingredient the compounds represented by formula (1) of the present invention may be singly used for preventing insect pests such agricultural, horticultural or stored grain insect pests which are noxious to paddy rice, fruit trees, vegetables, other crops and flowering plants, sanitary pests, or nematodes. In order to further obtain an excellent preventive effect on various noxious insects which simultaneously occur, at least one of other insecticides and/or fungicides may be combined with the compounds represented by formula (1) of the present invention.

Examples of such insecticides which can be combined with the compounds represented by formula (1) of the present invention include synthetic pyrethroid insecticides such as allethrin, tetramethrin, resmethrin, phenothrin, furamethrin, permethrin, cypermethrin, deltamethrin, cyhalothrin, cyfluthrin, fenpropathrin, tralomethrin, cycloprothrin, flucythrinate, fluvalinate, acrinathrin, tefluthrin, bifenthrin, empenthrin, beta-cyfluthrin, zeta-cypermethrin, and fenvalerate, and various isomers thereof and pyrethrum extracts; organophosphate insecticides such as DDVP, cyanophos, fenthion, fenitrothion, tetrachlorvinphos, dimethylvinphos, propaphos, methylparathion, temephos, phoxim, acephate, isofenphos, salithion, DEP, EPN, ethion, mecarbam, pyridafenthion, diazinon, pirimiphos-methyl, etrimfos, isoxathion, quinalphos, chlorpyrifos-methyl, chlorpyrifos, phosalone, phosmet, methidathion, oxydeprofos, vamidothion, malathion, phenthoate, dimethoate, formothion, thiometon, ethylthiometon, phorate, terbufos, profenofos, prothiofos, sulprofos, pyraclofos, monocrotophos, naled, fosthiazate, and cadusafos; carbamate insecticides such as NAC, MTMC, MIPC, BPMC, XMC, PHC, MPMC, ethiofencarb, bendiocarb, pirimicarb, carbosulfan, benfuracarb, methomyl, oxamyl, and aldicarb; arylpropylether insecticides such as etofenprox and halfenprox; silylether insecticides such as silafluofen; insecticidal natural products such as nicotine-sulfate, polynactin complex, abamectin, milbemectin, and BT agents; insecticides such as, cartap, thiocyclam, bensultap, diflubenzuron, chlorfluazuron, teflubenzuron, triflumuron, flufenoxuron, flucycloxuron, hexaflumuron, fluazuron, imidacloprid, nitenpyram, acetamiprid, dinotefuran, pymetrozine, fipronil, buprofezin, fenoxycarb, pyriproxyfen, methoprene, hydroprene, kinoprene, diafenthiuron, triazamate, tebufenozide, and endosulfan; acaricides such as dicofol, chlorobenzilate, bromopropylate, tetradifon, CPCBS, BPPS, chinomethionate, amitraz, benzoximate, hexythiazox, fenbutatin oxide, cyhexatin, dienochlor, clofentezine, pyridaben, fenpyroximate, fenazaquin, and tebufenpyrad; and other insecticides such as novaluron, noviflumuron, emamectin benzoate, clothianidin, thiacloprid, thiamethoxam, flupyrazofos, acequinocyl, bifenazate, chromafenozide, etoxazole, fluacrypyrim, flufenzine, halofenozide, indoxacarb, methoxyfenozide, spirodiclofen, tolfenpyrad, gamma-cyhalothrin, ethiprole, amidoflumet, bistrifluron, flonicamid, flubrocythrinate, flufenerim, pyridalyl, pyrimidifen, spinosad, and spiromesifen.

Examples of fungicides which can be combined with the compounds represented by formula (1) of the present invention include azole fungicides such as triadimefon, hexaconazole, propiconazole, ipconazole, prochloraz, and triflumizole; pyrimidine fungicides such as pyrifenox and fenarimol; anilinopyrimidine fungicides such as mepanipyrim and cyprodinil; acylalanine fungicides such as metalaxyl, oxadixyl, and benalaxyl; benzimidazole fungicides such as thiophanate-methyl and benomyl; dithiocarbamate fungicids such as mancozeb, propineb, zineb, and metiram; organochlorine fungicides such as tetrachloroisophthalonitrile; carboxamide fungicides such as carpropamid and ethaboxam; morpholine fungicides such as dimethomorph; strobilurin fungicides such as azoxystrobin, kresoxim-methyl, metominostrobin, orysastrobin, fluoxastrobin, trifloxystrobin, dimoxystrobin, pyraclostrobin, and picoxystrobin; dicarboxyimide fungicides such as iprodione and procymidone; soil-applied fungicides such as flusulfamide, dazomet, methyl isothiocyanate, and chloropicrin; copper fungicides such as basic copper chloride, basic copper sulfate, copper nonylphenol sulfonate, oxine-copper, and DBEDC; inorganic fungicides such as sulfur and zinc sulfate; organophosphate fungicides such as edifenphos, tolclofos-methyl, and fosetyl-aluminum; melanin biosynthesis inhibitors such as phthalide, tricyclazole, pyroquilon, and diclocymet; antibiotics such as kasugamycin, validamycin, and polyoxins; fungicidal natural products such as repe seed oil; and other fungicides such as benthiavalicarb-isopropyl, iprovalicarb, cyflufenamid, fenhexamid, quinoxyfen, spiroxamine, diflumetorim, metrafenone, picobenzamid, proquinazid, silthiofam, oxypoconazole, famoxadone, cyazofamid, fenamidone, furametpyr, zoxamide, boscalid, tiadinil, simeconazole, chlorothalonil, cymoxanil, captan, dithianon, fluazinam, folpet, dichlofluanid, (RS)—N-[2-(1,3-dimethylbutyl)thiophen-3-yl]-1-methyl-3-trifluoromethyl-1H-pyrazole-4-carboxamide (penthiopyrad; ISO proposed), oxycarboxin, mepronil, flutolanil, triforine, oxolinic acid, probenazole, acibenzolar-S-methyl, isoprothiolane, ferimzone, diclomezine, pencycuron, fluoroimide, chinomethionate, iminoctadine-triacetate, and iminoctadine-albesilate.

When the compounds represented by formula (1) of the present invention are combined with at lease one type of other insecticide and/or fungicide, mixed compositions of the compounds represented by formula (1) and other insecticides and/or fungicides may be used, or the compounds represented by formula (1) may be mixed with other insecticides and/or fungicides during agricultural treatment.

Besides the above-described insecticides and fungicides, the compounds represented by formula (1) may be mixed with a herbicide, a fertilizer, an ameliorant, a plant protective such as a plant growth regulator, or resources to form multipurpose compositions having superior efficiency or compositions from which an additive effect or a synergistic effect can be expected.

Although representative examples of the present invention will be described below, the present invention is not limited to these examples.

Example 1

(1-1) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-nitrobenzamide

To a solution prepared by adding 20.0 g of 2,6-dimethyl-4-heptafluoroisopropylaniline and 11.0 g of pyridine to 100

ml of tetrahydrofuran and then stirring the resultant mixture at room temperature was dropwise added a solution of 13.0 g of 3-nitrobenzoyl chloride in 20 ml of tetrahydrofuran. After the resultant mixture was stirred at room temperature for 10 hours, ethyl acetate and water were added to the reaction solution. Then, a separating operation was performed, and an organic layer was separated and then dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was washed with a n-hexane-diisopropyl ether solvent mixture to obtain 26.0 g (yield 85%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.33 (6H, s), 7.37 (2H, s), 7.68 (1H, s), 7.72 (1H, t, J=8.1 Hz), 8.28 (1H, d, J=8.1 Hz), 8.44 (1H, dd, J=1.2 Hz, 8.1 Hz), 8.75 (1H, t, J=1.2 Hz)

(1-2) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzamide

To a solution prepared by adding 0.90 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-nitrobenzamide and 1.56 g of tin chloride anhydride to 25 ml of ethanol and stirring the resultant mixture at room temperature was added 2 ml of conc. hydrochloric acid. The resultant mixture was then stirred under heating at 60° C. for 1 hour. After the temperature was returned to room temperature, the reaction solution was poured into water and then neutralized with potassium carbonate. Then, ethyl acetate was added to the reaction solution, and insoluble materials were filtered off. Then, an organic layer was separated and then dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was washed with hexane to obtain 0.44 g (yield 53%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.34 (6H, s), 3.87 (2H, broad), 6.86-6.89 (1H, m), 7.20-7.35 (6H, m)

(1-3) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-(2-chloroethoxycarbonylamino) benzamide (Compound No. 130)

To a solution prepared by adding 0.20 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzamide and 0.08 g of pyridine to 5 ml of tetrahydrofuran and stirring the resultant mixture at room temperature was dropwise added a solution of 0.07 g of 2-chloroethyl chloroformate in 1 ml of tetrahydrofuran. After the resultant mixture was stirred for 2 hours, ethyl acetate and water were added to the reaction solution. Then, a separating operation was performed, and an organic layer was separated and then dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.23 g (yield 91%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.35 (6H, s), 3.74-3.77 (2H, m), 4.44-4.47 (2H, m), 6.87 (1H, broad), 7.36 (2H, s), 7.43-7.52 (2H, m), 7.59-7.64 (2H, m), 8.02 (1H, s)

The compounds shown in Table 6 can be produced as production intermediates useful for producing the compounds represented by formula (1) of the present invention according to the processes described in Examples 1-1 and 1-2.

Example 2

Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-(ethylthiocarbonylamino)benzamide (Compound No. 1962)

To a solution prepared by adding 0.25 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzamide produced in (1-2) of Example 1 and 0.06 g of pyridine to 5 ml of tetrahydrofuran and then stirring the resultant mixture at room temperature was dropwise added a solution of 0.08 g of ethyl chlorothioformate in 1 ml of tetrahydrofuran. After the resultant mixture was stirred for 2 hours, ethyl acetate and water were added to the reaction solution. Then, a separating operation was performed, and an organic layer was separated and then dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was washed with hexane to obtain 0.27 g (yield 89%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$+DMSO-d_6, ppm) δ 1.34 (3H, t, J=7.3 Hz), 2.34 (6H, s), 2.96 (2H, q, J=7.3 Hz), 7.33 (2H, s), 7.41 (1H, t, J=7.8 Hz), 7.67 (1H, d, J=7.8 Hz), 7.83-7.85 (1H, m), 8.11 (1H, d, J=2.0 Hz), 8.79 (1H, s), 9.58 (1H, s)

Example 3

Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-[(4-cyanobenzyl)oxycarbonylamino] benzamide (Compound No. 85)

To a solution prepared by adding 0.30 g 3-isocyanatobenzoyl chloride to 10 ml of ether and then stirring the resultant mixture at 2° C. was dropwise added, over 5 minutes at a temperature kept at 2° C., a solution of 0.23 g of 4-cyanobenzyl alcohol and 0.32 g of tri-n-butylamine in 5 ml of ether. After the resultant mixture was stirred at 2° C. for 2 hours, the temperature was returned to room temperature, and then a solution of 0.49 g of 2,6-dimethyl-4-heptafluoroisopropylaniline in 5 ml of ether was dropwise added to the mixture, followed by stirring at room temperature for 8 hours. Then, ethyl acetate was added to the reaction solution, and the reaction solution was washed with water twice. Then, an organic layer was dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=2:1 to 1:1) to obtain 0.50 g (yield 40%) of the title compound as an oily material.

^{1}H-NMR (CDCl, ppm) δ 2.34 (6H, s), 5.27 (2H, s), 6.97 (1H, broad-s), 7.35 (2H, s), 7.45-7.52 (4H, m), 7.61-7.69 (4H, m), 8.01 (1H, s)

Similarly, N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-[(6-chloropyridine-3-yl)methoxycarbonylamino]benzamide (Compound No. 163) was produced by using 2-chloro-5-hydroxymethylpyridine.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.34 (6H, s), 5.22 (2H, s), 6.89 (1H, broad-s), 7.35-7.49 (5H, m), 7.62 (2H, d, J=7.3 Hz), 7.72-7.77 (1H, m), 8.00 (1H, broad-s), 8.45 (1H, d, J=2.4 Hz)

N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-[(tetrahydrofuran-3-yl)methoxycarbonylamino]benzamide (Compound No. 158) was produced by the same process as described above using 3-hydroxymethyltetrahydrofuran except that the solvent was changed to tetrahydrofuran.

^{1}H-NMR ($CDCl_3$, ppm) δ 1.66-1.73 (1H, m), 2.05-2.13 (1H, m), 2.34 (6H, s), 2.60-2.70 (1H, m), 3.64-3.68 (1H, m),

3.73-3.79 (1H, m), 3.85-3.92 (2H, m), 4.09-4.15 (2H, m), 6.87 (1H, broad-s), 7.35 (2H, s), 7.46 (2H, t, J=7.8 Hz), 7.61-7.66 (2H, m), 8.01 (1H, broad-s)

Example 4

(4-1) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzthioamide

To 10 ml of toluene were added 0.35 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzamide produced in Example (1-2) and 0.19 g of Lawesson's reagent. Then, the resultant mixture was stirred under heating at a reflux temperature for 6 hours. The reaction solution was concentrated under reduced pressure, and the solvent was distilled off. The residue was purified by silica gel column chromatography (eluent; hexane ethyl acetate=3:1) to obtain 0.07 g (yield 20%) of the title compound.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.36 (6H, s), 3.87 (2H, broad-s), 6.84-6.87 (1H, m), 7.18-7.24 (2H, m), 7.33 (1H, s), 7.39 (2H, s), 8.56 (1H, broad-s)

(4-2) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-(2,2,2-trichloroethoxycarbonylamino)benzthioamide (Compound No. 1964)

To a solution prepared by adding 0.07 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzthioamide and 0.03 g of pyridine to 5 ml of tetrahydrofuran and then stirring the resultant mixture at room temperature was dropwise added a solution of 0.05 g of 2,2,2-trichloroethyl chloroformate in 1 ml of tetrahydrofuran. After the resultant mixture was stirred 2 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.09 g (yield 90%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.37 (6H, s), 4.85 (2H, s), 7.07 (1H, broad), 7.39 (2H, s), 7.45 (1H, t, J=8.1 Hz), 7.61-7.68 (2H, m), 8.11 (1H, s), 8.69 (1H, s)

Example 5

(5-1) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-chloropyridine-2-carboxamide

First, to a solution prepared by adding 2.36 g of 6-chloropyridine-2-carboxylic acid and 5 droplets of N,N-dimethylformamide to 30 ml of toluene was added 2.14 g of thionyl chloride, and then the resultant mixture was stirred under heating at 80° C. for 2 hours. Then, the solvent was distilled off under reduced pressure, and the residue was dissolved in 10 ml of tetrahydrofuran. The resultant solution was added dropwise, at room temperature, to a solution obtained by adding 3.83 g of 2,6-dimethyl-4-heptafluoroisopropylaniline and 1.28 g of pyridine to 20 ml of tetrahydrofuran, followed by stirring for 5 hours. Then, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 3.90 g (yield 67%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.36 (6H, s), 7.36 (2H, s), 7.56 (1H, dd, J=1.0 Hz, 8.1 Hz), 7.88 (1H, dd, J=7.6 Hz, 8.1 Hz), 8.23 (1H, dd, J=1.0 Hz, 7.6 Hz), 9.27 (1H, broad-s)

(5-2) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-aminopyridine-2-carboxamide

In a 200 ml autoclave were charged 3.08 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-chloropyridien-2-carboxamide, 30 ml of 28% ammonia water, 0.20 g of cupper sulfate, and 70 ml of methanol, and the resultant mixture was stirred under heating at 150° C. for 2 hours. After the mixture was cooled to room temperature, ammonia was distilled off at 60° C. under atmospheric pressure, and methanol was distilled off under reduced pressure. Then, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous sodium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=3:2 to 2:3) to obtain 2.90 g (yield 98%) of the title compound as a oily material.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.35 (6H, s), 4.57 (2H, broad-s), 6.69-6.74 (1H, m), 7.34 (2H, s), 7.62-7.66 (2H, m), 9.39 (1H, broad-s)

(5-3) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-(2,2,2-trichloroethoxycarbonylamino)pyridine-2-carboxamide (Compound No. 1968)

To a solution prepared by adding 0.15 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-aminopyridine-2-carboxamide and 0.06 g of pyridine to 5 ml of tetrahydrofuran and stirring the resultant mixture at room temperature was dropwise added a solution of 0.085 g of 2,2,2-trichloroethyl chloroformate in 1 ml of tetrahydrofuran. After the resultant mixture was stirred for 2 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=10:1) to obtain 0.13 g (yield 61%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.35 (6H, s), 4.89 (2H, s), 7.36 (2H, s), 7.63 (1H, broad-s), 7.97 (1H, dd, J=7.6 Hz, 8.3 Hz), 8.05 (1H, d, J=7.6 Hz), 8.21 (1H, d, J=8.3 Hz), 9.17 (1H, broad-s)

(5-4) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-(2,2,2-trichloroethoxycarbonylamino)pyridine-N-oxide-2-carboxamide (Compound No. 2062)

To 10 ml of benzene was added 0.26 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-(2,2,2-trichloroethoxycarbonylamino) pyridine-2-carboxamide produced in Example 5-3, and then the resultant mixture was stirred. Then, 0.08 g of m-chloroperbenzoic acid was added to the mixture at room temperature. After the resultant mixture was stirred at 70° C.

for 1 hour, 0.2 g of m-chloroperbenzoic acid was further added to the mixture, followed by stirring at 70° C. for 7 hours. Then, the mixture was diluted with ethyl acetate, and an organic layer was washed with a saturated aqueous solution of sodium hydrogen carbonate three times and dried with anhydrous magnesium sulfate. Then, the solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=10:1) to obtain 0.11 g (yield 41%) of the title compound as an amorphous material.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.37 (6H, s), 4.91 (2H, s), 7.36 (2H, s), 7.61 (1H, t, J=8.3 Hz), 8.23 (1H, dd, J=8.3 Hz, 1.9 Hz), 8.45 (1H, dd, J=8.3 Hz, 1.9 Hz), 9.81 (1H, broad-s), 12.70 (1H, broad-s)

(5-5) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-(methylamino)pyridine-2-carboxamide

N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-(methylamino)pyridine-2-carboxamide was produced by using N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-chloropyridine-2-carboxamide produced in Example 5-1 and a methylamine aqueous solution as reaction materials according to the process described in Example 5-2.

^{1}H-NMR (DMSO-d_6, ppm) δ 2.30 (6H, s), 2.92 (3H, s), 6.71 (1H, d, J=8.3 Hz), 6.85 (1H, d, J=4.9 Hz), 7.22 (1H, d, J=7.0 Hz), 7.44 (2H, s), 7.55 (1H, dd, J=7.0 Hz, 8.3 Hz), 10.05 (1H, s)

(5-6) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-[N-(2,2,2-trichloroethoxycarbonyl)-N-methylamino]pyridine-2-carboxamide (Compound No. 2168)

N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-[N-(2,2,2-trichloroethoxycarbonyl)-N-methylamino]pyridine-2-carboxamide was produced by using N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 6-(methylamino)pyridine-2-carboxamide produced in Example 5-5 as a starting material according to the process described in Example 5-3.

^{1}H-NMR (DMSO-d_6, ppm) δ 2.30 (6H, s), 3.61 (3H, s), 5.03 (2H, s), 7.47 (2H, s), 7.92 (1H, d, J=7.6 Hz), 7.98 (1H, d, J=7.6 Hz), 8.08 (1H, t, J=7.6 Hz), 10.18 (1H, s)

Example 6

(6-1) Production of ethyl 3-(2,2,2-trichloroethoxycarbonylamino)benzoate

To a solution prepared by adding 1.0 g of ethyl m-aminobenzoate and 0.72 g of pyridine to 10 ml of tetrahydrofuran and stirring the resultant mixture at room temperature was dropwise added a solution of 1.55 g of 2,2,2-trichloroethyl chloroformate in 5 ml of tetrahydrofuran. After the resultant mixture was stirred for 2 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was washed with hexane to obtain 1.89 g (yield 91%) of the title compound.

^{1}H-NMR ($CDCl_3$, ppm) δ 1.40 (3H, t, J=7.3 Hz), 4.38 (2H, q, J=7.3 Hz), 4.84 (2H, s), 6.96 (1H, broad-s), 7.43 (1H, t, J=7.8 Hz), 7.76-7.82 (2H, m), 7.99 (1H, t, J=2.0 Hz)

(6-2) Production of ethyl 3-[N-methyl-N-(2,2,2-trichloroethoxycarbonyl)amino]benzoate

To a suspension of 0.14 g of 60% sodium hydride in 5 ml of tetrahydrofuran was dropwise added a solution of 1.0 g of ethyl 3-(2,2,2-trichloroethoxycarbonylamino)benzoate in 5 ml of tetrahydrofuran, and the resultant mixture was stirred at room temperature. Then, a solution of 0.45 g of dimethyl sulfate in 5 ml of tetrahydrofuran was dropwise added, and the resultant mixture was stirred at room temperature for 3 hours. After water was added to the mixture, the mixture was subjected to extraction with ethyl acetate, and an organic layer was washed twice with water and dried with anhydrous magnesium sulfate. Then, the solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane ethyl acetate=4:1) to obtain 0.84 g (yield 79%) of the title compound as an oily material.

^{1}H-NMR ($CDCl_3$, ppm) δ 1.40 (3H, t, J=7.1 Hz), 3.41 (3H, s), 4.39 (2H, q, J=7.1 Hz), 4.77 (2H, s), 7.43-7.52 (2H, m), 7.93-8.01 (2H, m)

(6-3) Production of 3-[N-methyl-N-(2,2,2-trichloroethoxycarbonyl)amino]benzoic acid

To 5 ml of ethanol were added 0.5 g of ethyl 3-[N-methyl-N-(2,2,2-trichloroethoxycarbonyl)amino]benzoate and a 1N sodium hydroxide aqueous solution, and the resultant mixture was stirred at room temperature for 1.5 hours. After the reaction solution was controlled to pH 3 by dropwise adding 1N hydrochloric acid, ethyl acetate was added to the reaction solution, and an organic layer was separated. The organic layer was washed with water twice and washed with a saturated saline solution once, and then dried with anhydrous magnesium sulfate. The solvent was distilled off under reduced pressure to obtain 0.45 g (yield 98%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 3.43 (3H, s), 4.79 (2H, s), 7.41-7.60 (2H, m), 7.93-8.05 (2H, m)

(6-4) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-[N'-methyl-N'-(2,2,2-trichloroethoxycarbonyl)amino]benzamide (Compound No. 1958)

A solution of 0.30 g of 3-[N-methyl-N-(2,2,2-trichloroethoxycarbonyl)amino]benzoic acid and 0.07 g of N-methylmorpholine in 5 ml of tetrahydrofuran was stirred under cooling at −15° C. A solution of 0.09 g of isopropyl chloroformate in 5 ml of tetrahydrofuran was dropwise added to the solution, and then a solution of 0.20 g of 2,6-dimethyl-4-heptafluoroisopropylaniline in 5 ml of tetrahydrofuran was dropwise added to the resultant mixture. Then, the resultant mixture was stirred at −15° C. for 1 hour and at room temperature for 24 hours. After the temperature was returned to room temperature, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was washed with water twice and dried with anhydrous magnesium sulfate. The solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1 to 2:1) to obtain 0.05 g (yield 5%) of the title compound as an oily material.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.34 (6H, s), 3.45 (3H, s), 4.80 (2H, s), 7.36 (2H, s), 7.50-7.56 (3H, m), 7.78 (1H, d, J=6.1 Hz), 7.90 (1H, s)

Example 7

(7-1) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-iodo-5-aminobenzamide

To a solution prepared by adding 0.70 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-aminobenzamide produced in Example 1-2 to 8 ml of N,N-dimethylformamide and then stirring the resultant mixture in an iced water bath was dropwise added a solution of 0.39 g of N-iodosuccinimide in 2 ml of N,N-dimethylformamide. After the dropwise addition, the temperature was returned to room temperature, and then mixture was further stirred for 3 hours. Then, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=3:2) to obtain 0.67 g (yield 73%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.44 (6H, s), 3.86 (2H, broad-s), 6.52 (1H, dd, J=2.9 Hz, 8.5 Hz), 6.91 (1H, d, J=2.9 Hz), 7.12 (1H, s), 7.35 (2H, s), 7.62 (1H, d, J=8.5 Hz)

(7-2) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-iodo-5-(isopropyloxycarbonylamino)benzamide (Compound No. 1945)

To a solution obtained by adding 0.20 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-iodo-5-aminobenzamide and 0.06 g of pyridine to 5 ml of tetrahydrofuran and then stirring the mixture at room temperature was dropwise added a solution of 0.05 g of isopropyl chloroformate in 1 ml of tetrahydrofuran. After reaction for 2 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.22 g (yield 96%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 1.31 (6H, d, J=6.3 Hz), 2.45 (6H, s), 5.03 (1H, septet, J=6.3 Hz), 6.66 (1H, s), 7.16-7.21 (2H, m), 7.36 (2H, s), 7.76 (1H, s), 7.82 (1H, dd, J=2.7 Hz, 8.8 Hz)

Example 8

(8-1) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-chloro-3-nitrobenzamide

First, to a solution prepared by adding 2.50 g of 2-chloro-3-nitrobenzoic acid and 5 droplets of N,N-dimethylformamide to 30 ml of toluene was added 1.62 g of thionyl chloride, and the resultant mixture was stirred under heating at 80° C. for 2 hours. Then, the solvent was distilled off under reduced pressure, and the residue was dissolved in 10 ml of tetrahydrofuran. The resultant solution was dropwise added to a solution of 3.24 g of 2,6-dimethyl-4-heptafluoroisopropylaniline and 1.77 g of pyridine in 20 ml of tetrahydrofuran at room temperature, and the mixture was stirred for 5 hours. Then, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 3.38 g (yield 64%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.42 (6H, s), 7.34 (1H, s), 7.37 (1H, s), 7.55 (1H, t, J=7.8 Hz), 7.80 (1H, dd, J=1.5 Hz, 7.8 Hz), 7.86 (1H, dd, J=1.5 Hz, 7.8 Hz), 9.58 (1H, s)

(8-2) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-fluoro-3-nitrobenzamide

To 25 ml of N,N-dimethylformamide dried with molecular sieve were added 2.35 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-chloro-3-nitrobenzamide and 0.87 g of potassium fluoride (spray-dried), and the resultant mixture was stirred under heating at 150° C. for 3 hours. After the temperature was returned to room temperature, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated, washed with water twice, and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane ethyl acetate=4:1) to obtain 1.02 g (yield 45%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.37 (6H, s), 7.39 (2H, s), 7.48-7.53 (1H, m), 7.87 (1H, d, J=11.5 Hz), 8.23-8.28 (1H, m), 8.42-8.46 (1H, In)

(8-3) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-fluoro-3-aminobenzamide

The title compound was produced by using N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-fluoro-3-nitrobenzamide produced in Example 8-2 as a starting material according to the same process as in Example 1-2 (yield 72%).

^{1}H-NMR ($CDCl_3$, ppm) δ 2.37 (6H, s), 3.90 (2H, broad-s), 6.96-7.01 (1H, m), 7.10 (1H, t, J=7.8 Hz), 7.36 (2H, s), 7.43-7.47 (1H, m), 7.86 (1H, d, J=13.2 Hz)

(8-4) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-fluoro-3-(isopropyloxycarbonylamino)benzamide (Compound No. 1389)

The title compound was produced by using N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 2-fluoro-3-aminobenzamide produced in Example 8-3 as a starting material according to the same process as in Example 7-2 (yield 72%).

^{1}H-NMR ($CDCl_3$, ppm) δ 1.34 (6H, d, J=6.3 Hz), 2.36 (6H, s), 5.07 (1H, septet, J=6.3 Hz), 6.86 (1H, broad-s), 7.30 (1H, t, J=8.1 Hz), 7.37 (2H, s), 7.72-7.79 (2H, m), 8.32 (1H, broad)

Example 9

(9-1) Production of 3-[(2,2,2-trichloroethoxy)carbonylamino]benzoic acid

To an aqueous solution (200 ml) of 8.22 g of m-aminobenzoic acid and 4.8 g of sodium hydroxide was dropwise added 25.0 g of 2,2,2-trichloroethyl chloroformate at room temperature. During the dropwise addition, the reaction solution was controlled to pH 10 or more by appropriately adding a 1N sodium hydroxide aqueous solution. After the reaction, the solution was controlled to pH 1 by adding 1N hydrochloric acid, and the precipitates were collected by filtration. The resultant crude crystals were dried and then washed with a

ethyl acetate/n-hexane mixed solvent to obtain 16.2 g (yield 87%) of the title compound as a solid.

^{1}H-NMR (DMSO-d_6, ppm) δ 4.85 (2H, s), 7.38 (1H, d, J=7.8 Hz), 7.75 (1H, d, J=7.8 Hz), 7.79-7.80 (1H, m), 8.14 (1H, s), 9.02 (1H, s)

(9-2) Production of 3-[(2,2,2-trichloroethoxy)carbonylamino]benzoyl chloride

To a toluene solution (10 ml) of 1.0 g of 3-[(2,2,2-trichloroethoxy)carbonylamino]benzoic acid produced in Example 9-1 was added 2 ml of thionyl chloride, and the resultant mixture was stirred at 100° C. The solvent was distilled off under reduced pressure, and the residue was dissolved in toluene. The solvent was again distilled off under reduced pressure to obtain 1.0 g (yield 95%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 4.86 (2H, s), 7.00 (1H, broad-s), 7.51 (1H, t, J=7.8 Hz), 7.84 (1H, d, J=7.8 Hz), 7.88 (1H, d, J=7.8 Hz), 8.16 (1H, s)

(9-3) Production of N-(2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl 3-[(2,2,2-trichloroethoxy)carbonylamino]benzamide (Compound No. 257)

First, to a solution prepared by adding 0.34 g of 2,6-dimethyl-4-(nonafluoro-2-butyl)aniline and 0.09 g of pyridine to 5 ml of tetrahydrofuran and stirring the resultant mixture at room temperature was added 0.33 g of 3-[(2,2,2-trichloroethoxy)carbonylamino]benzoyl chloride produced in Example 9-2. After reaction for 5 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.45 g (yield 71%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.34 (6H, s), 4.85 (2H, s), 7.10 (1H, s), 7.34 (2H, s), 7.47-7.51 (2H, m), 7.63-7.67 (2H, m), 8.05 (1H, s)

The following compounds were produced according to the processes described in Examples 9-1 and 9-2.

3-(ethoxycarbonylamino)benzoyl chloride
3-(isopropylpropyloxycarbonylamino)benzoyl chloride
3-[(cyclobutyloxy)carbonylamino]benzoyl chloride
3-[(cyclopentyloxy)carbonylamino]benzoyl chloride
3-[(3-cyanobenzyloxy)carbonylamino]benzoyl chloride
3-[(4-cyanobenzyloxy)carbonylamino]benzoyl chloride
3-[(2-cyanoethoxy)carbonylamino]benzoyl chloride
3-[(2-methylthioethoxy)carbonylamino]benzoyl chloride
3-[(2-ethylthioethoxy)carbonylamino]benzoyl chloride
3-[(2-ethylsulfinylethoxy)carbonylamino]benzoyl chloride
3-[(2-fluoroethoxy)carbonylamino]benzoyl chloride
3-[(2,2-difluoroethoxy)carbonylamino]benzoyl chloride
3-[(2,2,2-trifluoroethoxy)carbonylamino]benzoyl chloride
3-[(1,3-difluoro-2-propyloxy)carbonylamino]benzoyl chloride
3-[(1-chloro-3-fluoro-2-propyloxy)carbonylamino]benzoyl chloride
3-[(3,3,3-trifluoro-n-propyloxy)carbonylamino]benzoyl chloride
3-[(2,2,3,3,3-pentafluoro-n-propyloxy)carbonylamino]benzoyl chloride
3-[(4,4,4-trifluoro-n-butyloxy)carbonylamino]benzoyl chloride
3-[(2,2,3,3-tetrafluorocyclobutyloxy)carbonylamino]benzoyl chloride
3-[(2-chloroethoxy)carbonylamino]benzoyl chloride
3-[(2,2-dichloroethoxy)carbonylamino]benzoyl chloride
3-[(1,3-dichloro-2-propyloxy)carbonylamino]benzoyl chloride
3-[(3-chloro-n-propyloxy)carbonylamino]benzoyl chloride
3-[(2-bromoethoxy)carbonylamino]benzoyl chloride
3-[(3-bromo-n-propyloxy)carbonylamino]benzoyl chloride
3-[(2-iodoethoxy)carbonylamino]benzoyl chloride
3-[(6-chloropyridine-3-yl)methoxycarbonylamino]benzoyl chloride

Example 10

(10-1) Production of N-(2,4-bistrifluoromethylphenyl) 3-isocyanatobenzamide

To a 1,4-dioxane solution (20 ml) of 0.57 g of phosgene dimmer was added a 1,4-dioxane solution (5 ml) of 2.0 g of N-(2,4-bistrifluoromethylphenyl) 3-aminobenzamide (produced by using 2,4-bistrifluoromethylaniline as a starting material according to the process described in Example 1-2), and the resultant mixture was stirred at 60° C. for 3 hours. Then, the solvent was distilled off under reduced pressure, and the residue was dissolved in 10 ml of 1,4-dioxane. Then, the solvent was again distilled off under reduced pressure. The product was washed with n-hexane and filtered off to obtain 1.54 g (yield 72%) of the title compound.

^{1}H-NMR ($CDCl_3$, ppm) δ 7.33-7.36 (1H, m), 7.51 (1H, t, J=7.8 Hz), 7.62-7.65 (2H, m), 7.88-7.92 (2H, m), 8.31 (1H, broad-s), 8.70 (1H, d, J=8.8 Hz)

(10-2) Production of N-(2,4-bistrifluoromethylphenyl) 3-[(2,2,3,3,3-pentafluoro-n-propyloxy)carbonylamino]benzamide (Compound No. 250)

First, to an anhydrous tetrahydrofuran solution (15 ml) of 0.5 g of N-(2,4-bistrifluoromethylphenyl) 3-isocyanatobenzamide produced in Example 10-1 were added 0.40 g of 2,2,3,3,3-pentafluoro-n-propanol and 0.13 g of triethylamine, and the resultant mixture was stirred at room temperature for 5 hours. The mixture was diluted with ethyl acetate (20 ml), and an organic layer was washed with a 1N sodium hydroxide aqueous solution and 1N hydrochloric acid. The solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.49 g (yield 70%) of the title compound.

^{1}H-NMR ($CDCl_3$, ppm) δ 4.68 (2H, t, J=13.2 Hz), 7.08 (1H, broad-s), 7.50-7.59 (2H, m), 7.70 (1H, broad-s), 7.87-7.92 (2H, m), 8.00 (1H, s), 8.39 (1H, s), 8.71 (1H, d, J=8.8 Hz)

Example 11

(11-1) Production of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-(benzyloxycarbonyl)benzamide

A mixture of 3.24 g of benzyl alcohol and 2.85 g of pyridine was dropwise added to a tetrahydrofuran solution (60 ml) of 6.09 g of isophthaloyl chloride at room temperature. After the resultant mixture was stirred for 2 hours, a tetrahydrofuran solution (10 ml) of 2,6-dimethyl-4-heptafluoroisopropylaniline was added to the mixture in an ice bath, fol-

lowed by stirring at room temperature for 2 hours. The reaction solution was diluted with ethyl acetate (50 ml), and an organic layer was washed with 1N hydrochloric acid. The solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane ethyl acetate=9:1) to obtain 9.5 g (yield 60%) of the title compound as an amorphous material.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.33 (6H, s), 5.41 (2H, s), 7.34-7.48 (7H, m), 7.56 (1H, s), 7.61 (1H, t, J=7.8 Hz), 8.17 (1H, t, J=7.8 Hz), 8.28 (1H, d, J=7.8 Hz), 8.57 (1H, s)

(11-2) Production of 3-[(2,6-dimethyl-4-heptafluoroisopropylphenyl)aminocarbonyl]benzoic acid

Catalytic hydrogen reduction was performed at normal pressure by using a methanol solution (20 ml) of 2.0 g of N-(2,6-dimethyl-4-heptafluoroisopropyl)phenyl 3-(benzyloxycarbonyl)benzamide produced in Example 11-1 and 0.2 g of 10% palladium-carbon (wet, 50% product) to produce 1.59 g (yield 96%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.36 (6H, s), 7.37 (2H, s), 7.59 (1H, s), 7.67 (1H, t, J=7.8 Hz), 8.23 (1H, d, J=7.8 Hz), 8.32 (1H, d, J=7.8 Hz), 8.62 (1H, s)

(11-3) Production of N-(2,6-dimethyl-4-heptafluoroisopropylphenyl) 3-isocyanatobenzamide

First, to an acetone solution (25 ml) of 1.4 g of 3-[(2,6-dimethyl-4-heptafluoroisopropylphenyl)aminocarbonyl] benzoic acid produced in Example 11-2 and 0.38 g of triethylamine was added 0.44 g of ethyl chloroformate in an iced water bath, and the resultant mixture was stirred at room temperature for 1 hour. Then, an aqueous solution (10 ml) of 0.32 g of sodium azide was added to the mixture, followed by stirring at room temperature for 2 hours. The reaction solution was poured into iced water (150 ml), and the precipitates were extracted with ethyl acetate (50 ml) and then dried with anhydrous magnesium sulfate. After anhydrous magnesium sulfate was filtered off, toluene (50 ml) was added to the filtrate, and the low-boiling-point solvent was distilled off by heating to 110° C. using a Dean and Stark tube. After the end of gas generation was confirmed, the temperature was returned to room temperature, and then the residual solvent was distilled off under reduced pressure to obtain 1.23 g (yield 88%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.35 (6H, s), 7.32 (1H, d, J=7.8 Hz), 7.37 (2H, s), 7.39 (1H, s), 7.49 (1H, t, J=7.8 Hz), 7.67 (1H, s), 7.72 (1H, d, J=7.8 Hz).

(11-4) Production of N-(2,6-dimethyl-4-heptafluoroisopropylphenyl) 3-[(1-chloro-3-trifluoromethyl-2-propyl)oxycarbonylamino]benzamide (Compound No. 120)

The title compound was produced by using N-(2,6-dimethyl-4-heptafluoroisopropylphenyl) 3-isocyanatobenzamide produced in Example 11-3 according to the process described in Example 10-2.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.35 (6H, s), 3.75-3.83 (2H, m), 4.46-4.80 (2H, m), 5.19-5.24 (1H, m), 6.97 (1H, broad-s), 7.36 (2H, s), 7.36-7.48 (2H, m), 7.60-7.66 (2H, m), 8.03 (1H, s)

The following compounds were produced according to the processes described in Examples 10 and 11.

N-2,6-dimethyl-4-(nonafluoro-2-butyl)phenyl 3-isocyanatobenzamide

N-2,6-dimethyl-4-[(heptafluoro-n-propyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dibromo-4-[(heptafluoro-n-propyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dichloro-4-[(heptafluoro-n-propyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dimethyl-4-[(heptafluoroisopropyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dibromo-4-[(heptafluoroisopropyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dichloro-4-[(heptafluoroisopropyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dimethyl-4-[(nonafluoro-2-butyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dibromo-4-[(nonafluoro-2-butyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dichloro-4-[(nonafluoro-2-butyl)thio]phenyl 3-isocyanatobenzamide

N-2,6-dimethyl-4-[(heptafluoro-n-propyl)sulfinyl]phenyl 3-isocyanatobenzamide

N-2,6-dibromo-4-[(heptafluoro-n-propyl)sulfinyl]phenyl 3-isocyanatobenzamide

N-2,6-dichloro-4-[(heptafluoro-n-propyl)sulfinyl]phenyl 3-isocyanatobenzamide

N-2,6-dimethyl-4-[(heptafluoro-n-propyl)sulfonyl]phenyl 3-isocyanatobenzamide

N-2,6-dibromo-4-[(heptafluoro-n-propyl)sulfonyl]phenyl 3-isocyanatobenzamide

N-2,6-dichloro-4-[(heptafluoro-n-propyl)sulfonyl]phenyl 3-isocyanatobenzamide

Example 12

(12-1) Production of 4-(heptafluoro-n-propylthio)aniline

To an acetonitrile solution (20 ml) of 4-aminothiophenol (1.25 g, 9.98 mmol) and triethylamine (1.11 g, 11.0 mmol) was added 1-iodoheptafluoro-n-propane (5.91 g, 19.9 mmol), and the resultant mixture was stirred at room temperature for 3 hours. The mixture was diluted with ether, and washed with a 1N sodium hydroxide aqueous solution. Then, the product was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 1.85 g (yield 63%) of the title compound.

^{1}H-NMR ($CDCl_3$, ppm) δ 3.95 (2H, s), 6.66 (2H, d, J=8.8 Hz), 7.40 (2H, d, J=8.8 Hz)

(12-2) Production of 2,6-dibromo-4-(heptafluoro-n-propylthio)aniline

First, to a solution of 0.77 g of 4-(heptafluoro-n-propylthio)aniline produced in Example 12-1 in 15 ml of N,N-dimethylformamide was added 0.98 g of N-bromosuccinimide. After the resultant mixture was stirred at 60° C. for 2 hours, ether and water were added to the mixture. Then, an organic layer was separated, washed with water twice and dried with anhydrous magnesium sulfate. The solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=9:1) to obtain 1.19 g (yield 100%) of the title compound as a red oily material.

^{1}H-NMR ($CDCl_3$, ppm) δ 4.98 (2H, broad-s), 7.66 (2H, s)

(12-3) Production of N-{2,6-dibromo-4-(heptafluoro-n-propylthio)}phenyl 3-nitrobenzamide

To a solution prepared by adding 1.08 g of 2,6-dibromo-4-(heptafluoro-n-propylthio)aniline produced in Example 12-2

and 0.4 g of pyridine to 20 ml of tetrahydrofuran and stirring the resultant mixture at room temperature was dropwise added a solution of 0.55 g of 3-nitrobenzoyl chloride in 20 ml of tetrahydrofuran. After the resultant mixture was stirred at room temperature for 10 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.86 g (yield 48%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 7.73 (1H, s, J=7.8 Hz, 7.77 (1H, t, J=7.8 Hz), 7.96 (2H, s), 8.31 (1H, s), 8.47-8.50 (1H, m), 8.79 (1H, t, J=2.0 Hz)

(12-4) Production of N-{2,6-dibromo-4-(heptafluoro-n-propylthio)}phenyl 3-aminobenzamide

To a solution prepared by adding 0.97 g of N-{2,6-dibromo-4-(heptafluoro-n-propylthio)}phenyl 3-nitrobenzamide produced in Example 12-3 and 0.95 g of tin(II) chloride (anhydrous) to 20 ml of ethanol and stirring the resultant mixture at room temperature was added 2 ml of conc. hydrochloric acid, and the resultant mixture was stirred under heating at 60° C. for 1 hour. After the temperature was returned to room temperature, the reaction solution was poured into water, and the solution was neutralized with potassium carbonate. Then, ethyl acetate was added to the solution, and insoluble materials were filtered off. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was washed with hexane to obtain 0.75 g (yield 81%) of the title compound as a white solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 3.89 (2H, broad-s), 6.90 (1H, dt, J=2.5 Hz, 6.4 Hz), 7.28-7.30 (3H, m), 7.60 (1H, s), 7.93 (2H, s)

(12-5) Production of N-{2,6-dibromo-4-(heptafluoro-n-propylthio)}phenyl 3-(2,2,2-trichloroethoxycarbonylamino)benzamide (Compound No. 612)

To a solution prepared by adding 0.10 g of N-{2,6-dibromo-4-(heptafluoro-n-propylthio)}phenyl 3-aminobenzamide and 0.02 g of pyridine to 5 ml of tetrahydrofuran and stirring the resultant mixture at room temperature was dropwise added a solution of 0.04 g of 2,2,2-trichloroethyl chloroformate in 1 ml of tetrahydrofuran. After reaction for 2 hours, ethyl acetate and water were added to the reaction solution, and a separating operation was performed. Then, an organic layer was separated and dried with anhydrous magnesium sulfate. The solution was filtered, and then the filtrate was collected, and the solvent of the filtrate was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1.) to obtain 0.11 g (yield 84%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 4.86 (2H, s), 7.45 (1H, t, J=7.8 Hz), 7.72 (1H, d, J=7.8 Hz), 7.93 (2H, s), 7.94 (1H, broad-s), 8.13 (1H, s), 9.02 (1H, s), 9.17 (1H, s)

(12-6) Production of N-{2,6-dibromo-4-(heptafluoro-n-propylsulfinyl)}phenyl 3-nitrobenzamide and N-{2,6-dibromo-4-(heptafluoro-n-propylsulfonyl)}phenyl 3-nitrobenzamide

A solution prepared by adding 0.5 g of N-{2,6-dibromo-4-(heptafluoro-n-propylthio)}phenyl 3-nitrobenzamide to 15 ml of chloroform was stirred at room temperature, and 0.5 g of m-chloroperbenzoic acid was added to the mixture. After the resultant mixture was stirred at room temperature for 1 week, an aqueous solution of sodium hydrogen sulfite was added to the mixture, followed by stirring. Then, an organic layer was separated and washed with a 1N sodium hydroxide aqueous solution and saturated saline water. Then, the solvent was distilled off under reduced pressure. The residue was purified by silica gel column chromatography (eluent; hexane:ethyl acetate=4:1) to obtain 0.21 g of N-({2,6-dibromo-4-(heptafluoro-n-propylsulfinyl)}phenyl 3-nitrobenzamide and 0.12 g of N-{2,6-dibromo-4-(heptafluoro-n-propylsulfonyl)}phenyl 3-nitrobenzamide as solids.

(sulfinyl compound)^{1}H-NMR ($CDCl_3$, ppm) δ 7.76-7.82 (2H, m), 8.06 (1H, s), 8.29 (1H, s), 8.33-8.35 (1H, m), 8.49-8.53 (1H, m), 8.81 (1H, s)

(12-7) Production of 2,6-dimethyl-4-(heptafluoro-n-propylthio)aniline

To 20 ml of DMF were added 3.0 g (1.3 mmol) of 2,6-dibromo-4-heptafluoro-n-propylthioaniline, 3.0 g (21.9 mmol) of potassium carbonate, 0.75 g (0.65 mmol) of tetrakis (triphenylphosphine) palladium, and 0.17 g (1.3 mmol) of trimethylboroxine, and the resultant mixture was stirred at 135° C. for 6 hours. After the reaction solution was cooled to room temperature, insoluble materials were filtered off with cerite. The filtrate was concentrated under reduced pressure. The residue was purified by silica gel column chromatography (eluent; n-hexane:ethyl acetate=12:1 to 4:1) to obtain 1.17 g (yield 55%) of the title compound as an oily material.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.17 (6H, s), 3.86 (2H, broad-s), 7.22 (2H, s)

The following aniline derivatives can be produced according to the processes described in Examples 12-1, 12-2, 12-6, and 12-7.

2-methyl-4-(pentafluoroethylthio)aniline

2-methyl-4-(heptafluoro-n-propylthio)aniline

^{1}H-NMR ($CDCl_3$, ppm) δ 2.16 (3H, s), 3.90 (2H, broad-s), 6.65 (1H, d, J=8.3 Hz), 7.28-7.31 (2H, m)

2-bromo-4-(heptafluoro-n-propylthio)aniline

^{1}H-NMR ($CDCl_3$, ppm) δ 4.44 (2H, broad-s), 6.75 (1H, d, J=8.8 Hz), 7.36 (1H, dd, J=2.0 Hz, 8.8 Hz), 7.69 (1H, d, J=2.0 Hz)

2-methyl-4-(heptafluoroisopropylthio)aniline

2-methyl-4-(nonafluoro-n-butylthio)aniline

2-methyl-4-(pentafluoroethylsulfinyl)aniline

2-methyl-4-(heptafluoro-n-propylsulfinyl)aniline

2-methyl-4-(heptafluoroisopropylsulfinyl)aniline

2-methyl-4-(nonafluoro-n-butylsulfinyl)aniline

2-methyl-4-(pentafluoroethylsulfonyl)aniline

2-methyl-4-(heptafluoro-n-propylsulfonyl)aniline

2-methyl-4-(heptafluoroisopropylsulfonyl)aniline

2-methyl-4-(nonafluoro-n-butylsulfonyl)aniline

2,6-dichloro-4-(pentafluoroethylthio)aniline

2,6-dibromo-4-(pentafluoroethylthio)aniline

N-{2,6-dibromo-4-(pentafluoroethylthio)}phenyl 3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 7.73 (1H, s), 7.77 (1H, t, J=7.8 Hz), 7.96 (2H, s), 8.32 (1H, d, J=7.8 Hz), 8.47-8.50 (1H, m), 8.80 (1H, t, J=2.0 Hz)

2,6-dimethyl-4-(pentafluoroethylthio)aniline

2,6-dichloro-4-(heptafluoro-n-propylthio)aniline

^{1}H-NMR ($CDCl_3$, ppm) δ 4.82 (2H, broad-s), 7.48 (2H, s)

N-{2,6-dichloro-4-(heptafluoro-n-propylthio)}phenyl 3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 7.70 (1H, s), 7.76 (2H, s), 7.77 (1H, t, J=7.8 Hz), 8.31 (1H, d, J=7.8 Hz), 8.48 (1H, d, J=7.8 Hz), 8.78 (1H, t, J=2.0 Hz)

2,6-dibromo-4-(heptafluoro-n-propylthio)aniline

^{1}H-NMR ($CDCl_3$, ppm) δ 4.93 (2H, broad-s), 7.66 (2H, s)

2,6-dimethyl-4-(heptafluoro-n-propylthio)aniline

^{1}H-NMR ($CDCl_3$, ppm) δ 2.17 (6H, s), 3.86 (2H, broad-s), 7.22 (2H, s)

N-{2,6-dichloro-4-(heptafluoro-n-propylthio)}phenyl 2-chloro-3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 2.39 (6H, s), 7.30 (1H, s), 7.46 (2H, s), 7.57 (1H, t, J=7.8 Hz), 7.90 (1H, d, J=7.8 Hz), 7.91 (1H, d, J=7.8 Hz)

2-bromo-4-(heptafluoro-n-propyl)thio-6-methylaniline

^{1}H-NMR ($CDCl_3$, ppm) δ 2.22 (3H, s), 4.40 (2H, broad-s), 7.27 (1H, s), 7.60 (1H, d, J=2.0 Hz)

2,6-dichloro-4-(heptafluoroisopropylthio)aniline

^{1}H-NMR ($CDCl_3$, ppm) δ 6.40 (2H, s), 7.52 (2H, s)

2,6-dibromo-4-(heptafluoroisopropylthio)aniline

N-{2,6-dichloro-4-(heptafluoroisopropylthio)}phenyl 3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 7.73 (1H, s), 7.76 (1H, t, J=7.8 Hz), 7.95 (2H, s), 8.31 (1H, d, J=7.8 Hz), 8.48 (1H, d, J=7.8 Hz), 8.79 (1H, t, J=1.5 Hz)

2,6-dimethyl-4-(heptafluoroisopropylthio)aniline

2,6-dichloro-4-(nonafluoro-n-butylthio)aniline

2,6-dibromo-4-(nonafluoro-n-butylthio)aniline

N-{2,6-dichloro-4-(nonafluoro-n-butylthio)}phenyl 3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 7.76 (1H, s), 7.77 (1H, t, J=8.3 Hz), 7.96 (2H, s), 8.32 (1H, d, J=8.3 Hz), 8.48 (1H, d, J=8.3 Hz), 8.80 (1H, t, J=2.0 Hz)

2,6-dimethyl-4-(nonafluoro-n-butylthio)aniline

2,6-dichloro-4-(pentafluoroethylsulfinyl)aniline

2,6-dibromo-4-(pentafluoroethylsulfinyl)aniline

2,6-dimethyl-4-(pentafluoroethylsulfinyl)aniline

2,6-dichloro-4-(heptafluoro-n-propylsulfinyl)aniline

2,6-dibromo-4-(heptafluoro-n-propylsulfinyl)aniline

N-{2,6-dichloro-4-(heptafluoro-n-propylsulfinyl)}phenyl 3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 7.76-7.82 (2H, m), 8.06 (1H, s), 8.29 (1H, s), 8.33-8.35 (1H, m), 8.49-8.53 (1H, m), 8.81 (1H, s)

2,6-dimethyl-4-(heptafluoro-n-propylsulfinyl)aniline

2,6-dichloro-4-(heptafluoroisopropylsulfinyl)aniline

2,6-dibromo-4-(heptafluoroisopropylsulfinyl)aniline

2,6-dimethyl-4-(heptafluoroisopropylsulfinyl)aniline

2,6-dichloro-4-(nonafluoro-n-butylsulfinyl)aniline

2,6-dibromo-4-(nonafluoro-n-butylsulfinyl)aniline

2,6-dimethyl-4-(nonafluoro-n-butylsulfinyl)aniline

2,6-dichloro-4-(pentafluoroethylsulfonyl)aniline

2,6-dibromo-4-(pentafluoroethylsulfonyl)aniline

2,6-dimethyl-4-(pentafluoroethylsulfonyl)aniline

2,6-dichloro-4-(heptafluoro-n-propylsulfonyl)aniline

2,6-dibromo-4-(heptafluoro-n-propylsulfonyl)aniline

2,6-dimethyl-4-(heptafluoro-n-propylsulfonyl)aniline

2,6-dichloro-4-(heptafluoroisopropylsulfonyl)aniline

N-{2,6-dichloro-4-(heptafluoroisopropylsulfonyl)}phenyl 3-nitrobenzamide

^{1}H-NMR ($CDCl_3$, ppm) δ 7.79 (1H, t, J=7.8 Hz), 7.98 (1H, s), 8.07 (2H, s), 8.33 (1H, d, J=7.8 Hz), 8.51 (1H, d, J=7.8 Hz), 8.81 (1H, t, J=2.0 Hz)

2,6-dibromo-4-(heptafluoroisopropylsulfonyl)aniline

2,6-dimethyl-4-(heptafluoroisopropylsulfonyl)aniline

2,6-dichloro-4-(nonafluoro-n-butylsulfonyl)aniline

2,6-dibromo-4-(nonafluoro-n-butylsulfonyl)aniline

2,6-dimethyl-4-(nonafluoro-n-butylsulfonyl)aniline

Example 13

(13-1) Production of 2,6-dimethyl-4-(1,1,1,3,3,3-hexafluoro-2-hydroxy-2-propyl)aniline

A mixture of 2.42 g of 2,6-dimethylaniline, 7.35 g of hexafluoroacetone hydrate, and 0.04 g of p-toluenesulfonic acid monohydrate was stirred under heating at 100° C. for 5 hours. After the temperature was returned to room temperature, the mixture was diluted with ethyl acetate and washed with a 1N sodium hydroxide aqueous solution. Then, the solvent was distilled off under reduced pressure, and the precipitated crude crystals were washed with a n-hexane-ethyl acetate mixed solvent to obtain 4.47 g (yield 78%) of the title compound as a solid.

^{1}H-NMR ($CDCl_3$, ppm) δ 2.20 (6H, s), 3.26 (1H, broad-s), 3.76 (2H, broad-s), 7.25 (2H, s)

(13-2) Production of N-[2,6-dimethyl-4-(1,1,1,3,3,3-hexafluoro-2-hydroxy-2-propyl)]phenyl 3-(2,2,2-trichloroethoxycarbonylamino)benzamide (Compound No. 872)

The title compound was produced as an amorphous material by using 2,6-dimethyl-4-(1,1,1,3,3,3-hexafluoro-2-hydroxy-2-propyl)aniline produced in Example 13-1 as a starting material according to the process described in Example 9-3 (yield 92%).

^{1}H-NMR ($CDCl_3$, ppm) δ 2.31 (6H, s), 3.99 (1H, s), 4.85 (2H, s), 7.15 (1H, broad-s), 7.45-7.51 (4H, m), 7.64-7.66 (2H, m), 8.01 (1H, s)

Formulation examples containing the compounds represented by formula (1) of the present invention as active ingredients are shown below, however the present invention is not limited to these examples. In each of the formulation examples, "part(s)" represents "part(s) by weight".

Formulation Example 1

A mixture of 20 parts of a compound represented by formula (1) of the present invention, 10 parts of Sorpol 355S (surfactant produced by Toho CHemical Industry Co., Ltd.), and 70 parts of xylene was uniformly stirred to produce an emulsion.

Formulation Example 2

A mixture of 10 parts of a compound represented by formula (1) of the present invention, 2 parts of sodium alkylnaphthalenesulfonate, 1 part of sodium lignin-sulfonate, 5 parts of white carbon, and 82 parts of diatomite was uniformly stirred to produce a wettable powder.

Formulation Example 3

A mixture of 0.3 parts of a compound represented by formula (1) of the present invention and 0.3 parts of white carbon was uniformly stirred, and 99.2 parts of clay and 0.2 parts of Driless A (produced by Sankyo Co., Ltd.) were added to the mixture. The resultant mixture was uniformly ground to produce a dust.

Formulation Example 4

A mixture of 2 parts of a compound represented by formula (1) of the present invention, 2 parts of white carbon, 2 parts of sodium lignin-sulfonate, and 94 parts of bentonite was uni-

formly ground, and then water was added to the mixture. The resultant mixture was kneaded, granulated and then dried to produce granules.

Formulation Example 5

A mixture of 20 parts of a compound represented by formula (1) of the present invention and 5 parts of a 20% aqueous solution of polyvinyl alcohol was sufficiently stirred, and then 75 parts of a 0.8% aqueous solution of xanthane gum was added to the mixture. Then, the resultant mixture was again stirred to produce a flowable agent.

Test examples for making clear that the compounds represented by formula (1) of the present invention have excellent insecticidal activity are shown below, however the present invention is not limited to these examples.

Test Example 1

Insecticidal Test for Common Cutworm (*Spodoptera litura*)

A cabbage leaf piece was immersed in a solution prepared by diluting a test compound to a predetermined concentration for 30 seconds, and then dried in air. Then, the cabbage leaf piece was placed in a polyethylene cup of 7 cm-size in which 2nd-instar larvae of common cutworm were placed. The cup was allowed to stand in a thermostatic chamber at 25° C. Three days after, the numbers of living and dead larvae were counted. The test was carried out in two replications each containing five larvae.

As a result, at a concentration of 1000 ppm, a mortality of 70% or more was exhibited by Compounds Nos. 20, 59, 60, 62, 64, 66, 75, 78, 79, 81, 83, 84, 85, 90, 91, 92, 106, 108, 109, 111, 112, 116, 117, 118, 119, 120, 121, 123, 124, 125, 126, 127, 130, 131, 132, 134, 135, 136, 137, 138, 139, 140, 155, 156, 161, 163, 165, 174, 175, 176, 180, 181, 184, 186, 189, 190, 192, 196, 197, 198, 205, 206, 207, 208, 209, 210, 212, 213, 215, 216, 217, 218, 219, 220, 221, 224, 225, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 241, 246, 247, 248, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 300, 301, 348, 377, 424, 464, 471, 511, 518, 565, 605, 612, 659, 706, 770, 800, 817, 818, 819, 854, 855, 856, 857, 843, 844, 846, 847, 864, 867, 872, 873, 878, 890, 891, 892, 898, 899, 900, 902, 903, 905, 913, 915, 916, 919, 920, 922, 932, 933, 944, 948, 992, 1010, 1039, 1086, 1104, 1180, 1198, 1227, 1245, 1274, 1292, 1321, 1361, 1368, 1388, 1389, 1408, 1411, 1416, 1418, 1421, 1435, 1455, 1458, 1463, 1465, 1903, 1906, 1907, 1922, 1923, 1924, 1925, 1926, 1929, 1931, 1932, 1935, 1939, 1941, 1942, 1943, 1944, 1945, 1947, 1948, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1958, 1959, 1963, 1964, 1967, 1968, 1969, 2061, 2062, 2164, 2165, and 2168.

Test Example 2

Insecticidal Test for Diamondback Moth (*Plutella xylostella*)

A cabbage leaf pieces was immersed in a solution prepared by diluting a test compound to a predetermined concentration for 30 seconds, and then dried in air. Then, the leaf piece was placed in a polyethylene cup of 7 cm-size in which 2nd-instar larvae of common cutworm were placed. The cup was allowed to stand in a thermostatic chamber at 25° C. Three days after, the numbers of living and dead larvae were counted. The test was carried out in two replications each containing five larvae.

As a result, at a concentration of 1000 ppm, a mortality of 70% or more was exhibited by Compounds Nos. 3, 5, 7, 8, 20, 59, 60, 62, 66, 75, 77, 78, 79, 80, 84, 85, 92, 94, 95, 96, 99, 101, 103, 104, 106, 108, 109, 110, 111, 112, 113, 116, 117, 118, 119, 120, 121, 123, 126, 127, 130, 131, 132, 134, 136, 137, 138, 139, 140, 141, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 168, 171, 174, 175, 176, 180, 181, 183, 184, 186, 190, 192, 196, 197, 198, 201, 203, 204, 205, 206, 207, 208, 209, 212, 213, 214, 215, 217, 218, 219, 220, 221, 223, 224, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 246, 247, 248, 249, 250, 252, 253, 254, 255, 256, 257, 258, 259, 300, 301, 348, 377, 424, 464, 471, 511, 518, 565, 605, 612, 659, 706, 800, 817, 818, 819, 820, 829, 858, 863, 865, 867, 868, 871, 872, 873, 878, 896, 897, 898, 899, 900, 902, 908, 913, 915, 919, 920, 922, 930, 932, 933, 936, 939, 941, 942, 943, 944, 945, 947, 948, 992, 1010, 1039, 1086, 1104, 1180, 1227, 1245, 1274, 1292, 1321, 1361, 1368, 1388, 1389, 1408, 1411, 1416, 1418, 1421, 1435, 1455, 1458, 1463, 1465, 1903, 1906, 1907, 1916, 1923, 1926, 1928, 1929, 1931, 1933, 1939, 1945, 1947, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1958, 1959, 1963, 1964, 1967, 1968, 1969, 2061, 2062, 2164, 2165, 2167, and 2168.

Test Example 3

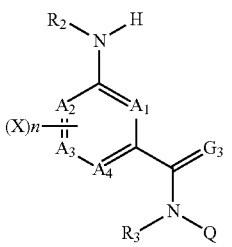
Insecticidal Test for Small Brown Planthopper (*Laodelphax striatellus*)

An acetone solution prepared by diluting a test compound to a predetermined concentration was sprayed on rice seedlings, and the rice seedlings were dried in air. Ten small brown planthoppers and an original chemical were used for the test. The rice seedlings were allowed to stand in a thermostatic chamber at 25° C. Six days after, the number of living insects was examined, and three days after, the number of dead insects was examined. The test was carried out one replication containing ten insects.

As a result, at a concentration of 1000 ppm, a mortality of 70% or more was exhibited by Compounds Nos. 108, 127, 184, 196, 197, 205, 209, 212, 215, 1321, 1361, 1368, 1408, 1411, 1416, 1435, 1455, 1458, 1463, 1958, 1959, and 1968.

The invention claimed is:

1. A compound represented by formula (4):



(4)

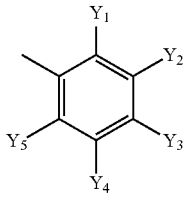
wherein A_1, A_2, A_3, and A_4 independently represent a carbon atom, a nitrogen atom, or an oxidized nitrogen atom; R_2 and R_3 independently represent a hydrogen atom, a C1-C4 alkyl group, a C1-C4 alkylcarbonyl group, or a C1-C4 haloalkylcarbonyl group; G_3 represents an oxygen atom or a sulfur atom; Xs may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C4 alkyl group, a C1-C4 haloalkyl group, a C1-C4 alkoxy group, a C1-C4 haloalkoxy group, a C1-C4 alkylthio group, a C1-C4 haloalkylthio group, a

C1-C4 alkylsulfinyl group, a C1-C4 haloalkylsulfinyl group, a C1-C4 alkylsulfonyl group, a C1-C4 haloalkylsulfonyl group, a cyano group, a nitro group, or an amino group which may be substituted by a C1-C4 alkyl group;

n represents an integer of 0 to 4; and

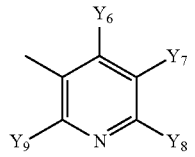
Q is a substituent represented by formula (1-2) or (1-3):

(1-2)



wherein Y_1, Y_2, Y_4, and Y_5 may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a pentafluorosulfanyl group, a cyano group, or a nitro group, and Y_3 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, a C1-C6 haloalkylsulfonyl group, or a pentafluorosulfanyl group, but excluding a case that a both of Y_1 and Y_5 represents a hydrogen atom;

(1-3)



wherein Y_6, Y_7, and Y_9 may be the same or different and each represent a hydrogen atom, a halogen atom, a C1-C6 alkyl group, a C1-C6 haloalkyl group, a C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C1-C6 alkylthio group, a C1-C6 haloalkylthio group, a C1-C6 alkylsulfinyl group, a C1-C6 haloalkylsulfinyl group, a C1-C6 alkylsulfonyl group, a C1-C6 haloalkylsulfonyl group, a pentafluorosulfanyl group, a cyano group, or a nitro group, and Y_8 represents a C1-C6 haloalkyl group, a C1-C6 haloalkoxy group, a C1-C6 haloalkyl group which may be substituted by at least one hydroxyl group, a C1-C6 haloalkylthio group, a C1-C6 haloalkylsulfinyl group, a C1-C6 haloalkylsulfonyl group, or a pentafluorosulfanyl group, but excluding a case that a both of Y_6 and Y_9 represent a hydrogen atom.

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